

SOAP

with which is included

Insecticide & Disinfectant Review

Editorial and Business Offices: 136 Liberty St., New York

Publication Office: Scranton, Pa.

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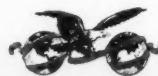
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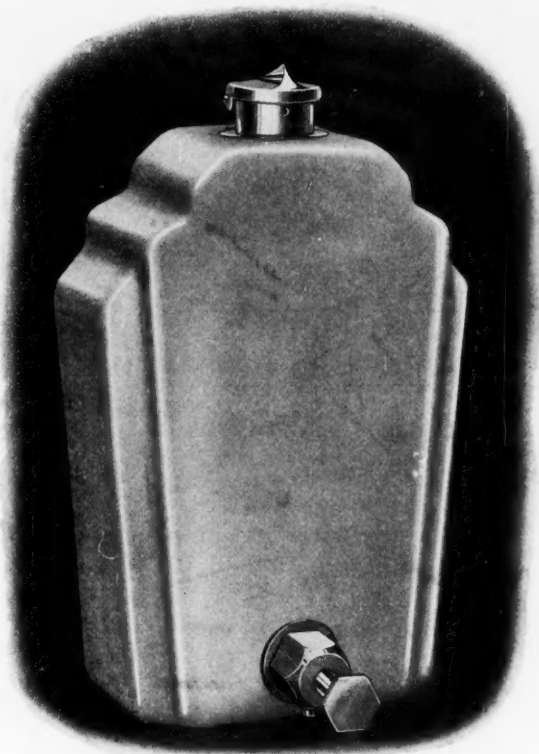
SOP-O-ZON

1931

MODEL

• LIQUID SOAP DISPENSER •

IN KEEPING WITH THE TREND OF THE TIMES



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SOAP

Reg. U. S. Patent Office

with which is included

Insecticide & Disinfectant Review

Volume Seven

JANUARY, 1931

Number 1

«

INSECTICIDE and Disinfectant Review, which publication is included as the second section of every issue of SOAP, begins on page 83. News, articles, and editorial opinion on insecticides, disinfectants, and allied sanitary products appear in that section of this publication.

«

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MACNAIR-DORLAND COMPANY, INC.

Ira P. MacNair

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PUBLISHERS

NEW YORK CITY

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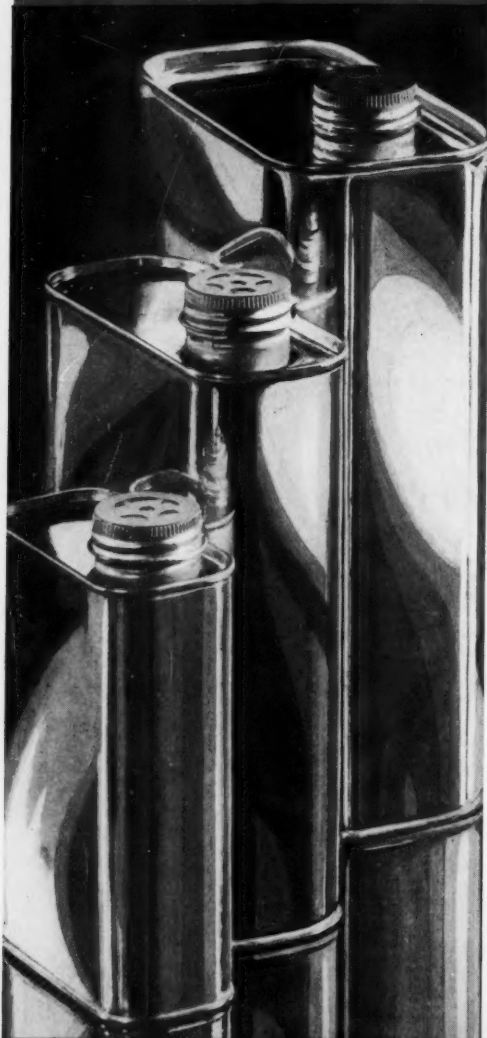
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A Sample will speak for itself.

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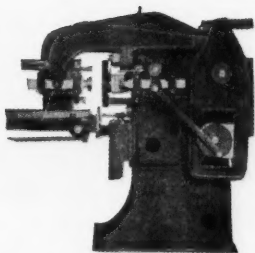
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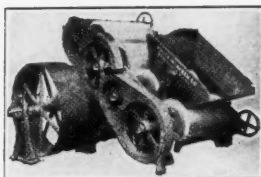
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DOPP CRUTCHERS

Sizes from 300 pounds to 3,000 pounds. All in best condition and guaranteed.



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It is clean, free from dirt, and uniform. So that it will not become contaminated, it is packed in galvanized drums at no extra cost over wooden barrels. These drums will aid you, too, in keeping plant dirt from the rosin.

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We want to talk with you and tell you more about Hercules I Wood Rosin.

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GG-12

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CLIFTON CHEMICAL CO.

Clifton Bldg.,

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What Can you do for us on items checked?

- | | |
|---|---|
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| <input type="checkbox"/> Olive Oil Base | <input type="checkbox"/> Cresol Compound U.S.P. |
| <input type="checkbox"/> Liquid Soap Dispensers | <input type="checkbox"/> Deodorizing Cakes |
| <input type="checkbox"/> Pine Cleanser | <input type="checkbox"/> Deodorizing Blocks |
| <input type="checkbox"/> Liquid Floor Soap | <input type="checkbox"/> Wall Containers |
| <input type="checkbox"/> Pine Deodorant | <input type="checkbox"/> Theatre Spray Base |
| <input type="checkbox"/> Pine Disinfectant | <input type="checkbox"/> Silver Polish Paste |

Remarks

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A Closure to fit Your Product



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Anchor Cap & Closure Corporation

Long Island City, N. Y.

Toronto, Canada

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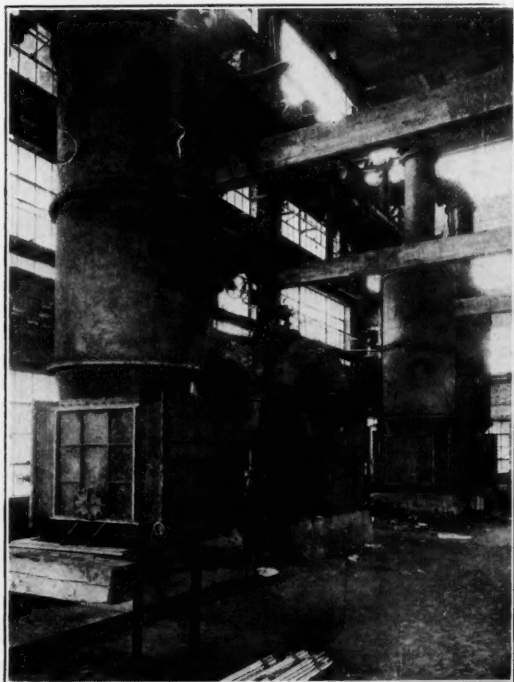
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MAKE USE OF ANCHOR'S LABORATORY SERVICE

Anchor maintains a complete, modern laboratory—with chemical, biological and research divisions—for the solving of glass packaging problems. Many times we have been able to suggest improvements or lowered costs—in containers, in closures or in production methods. This service is gratis, to anyone interested in glass packing. Send communications or samples to Research Department in Long Island City.

CONSUMER-APPROVED CLOSURES
Anchor for every Packing Need

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After six years of successful operation we were given a contract to install four additional units to take care of increased production.

The company engineers who had been operating the original CECO unit claimed that tests showed greater evaporation per square foot than the guarantee. Therefore they could install CECO Criss-Cross Evaporators of a much smaller size, and practically pay for them with the saving in floor space alone. Further the original unit had required practically no maintenance expense, as the tubes had never been touched or cleaned and are in very fine condition.

The new units are the very latest development, having large vapor section for the expansion of the vapors, therefore dropping out entrainment, although catch-alls

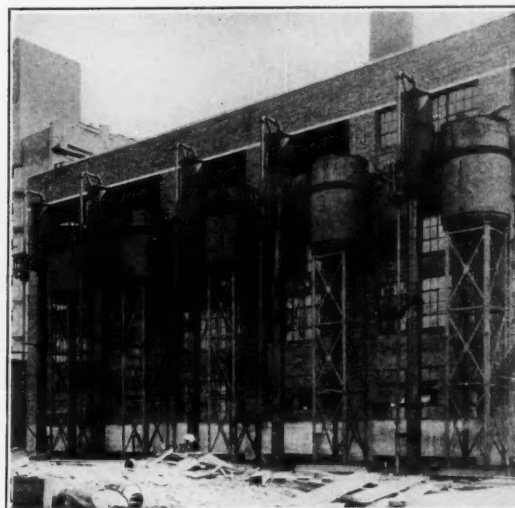


CECO Criss-Cross Evaporator Performance and Economies Dictated the Order for Four Additional Units

The illustration to the left shows an installation of four CECO Criss-Cross tube Evaporators in one of the largest soap plants in the West for the evaporation of spent soap lye and sweet water.

are installed as a precaution. Barometric condensers, see illustration at bottom, are used with steam jet vacuum pumps to assure the very highest vacuum that can be obtained for this type of equipment.

When considering new evaporation, whether for replacement, expansion or an entirely new operation, engineers should consider CECO Criss-Cross Evaporators very carefully, as we can show considerable improvement over the older types.



Chemical Equipment Company

MONTPELIER, INDIANA

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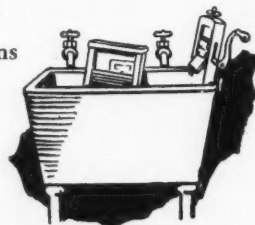
Soap Profits Hang From Two Threads

ECONOMY of *production* and quality of *product*! Either factor can make or break the manufacturer of soap. Combined, it is a surety of success.

Newport Pale Wood Rosins offer greater economy to the soap industry and greater quality to the soap. The Rosin is free from foreign matter and has a uniform melting point. It adds cleansing qualities to the soap and at the same time serves as an economical filler.

Specify Newport Pale Wood Rosins for dependability and uniform quality. Greater profits don't come by chance. Write for the facts.

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GENERAL NAVAL STORES COMPANY, Inc.



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on your
requirements*



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SWEET PEA
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Numerous Bouquet Types for All Needs

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UNGERER & CO.

New York

"Our quality is always higher than Our price"

Say you saw it in SOAP!

SOAP

VOLUME SEVEN

NUMBER ONE

What of 1931?

FEW will regret the passing of 1930 into history. For business generally, it was one of the worst years since 1907. When we can look back on it more calmly and coldly a year or two hence, a check-up will probably show that the structure of American business and finance was subject to greater strains than at any time since the World War began. That it was the natural aftermath of the wild speculation and too-rapid expansion of 1928-29 goes without saying. When we had the temerity to state right here about two years ago that business was headed for a bad headache if the financial excesses of the country did not end, we were branded old fogies. A new era of world finance, of values, of production and consumption was upon us,—so we were told,—the old order of things was past and gone forever. And then the stock market broke. Everybody woke up, and then came 1930 with its depression and unemployment.

For the soap industry, 1930 was perhaps a far better year than for business generally. This was due chiefly to one thing,—the unprecedented low levels to which fat and oil prices declined. The reduction in soap prices were compensated for by the low cost of fats. The volume of soap consumption, according to reports, did not fall off sharply as in the case of numerous other commodities. There was some reduction, but on the whole, the volume for 1930 compared very favorably with 1929. The margin of profit per pound of soap was probably greater in 1930 than for several years before, although for the previous years, it had been reputedly rather thin.

With most of the water squeezed out of American finance and industry, a new year has begun with a much greater prospect of

a return to normal. Already there are innumerable signs that general conditions are beginning to improve. Fear is slowly being dissipated. Paralyzed buying is taking to itself something of a small-sized revival. For the soap manufacturer, the outlook should be particularly encouraging. As the situation now stands, 1931 could very readily be one of the best years in the history of the industry, and if somebody or group of somebodies does not kick over the apple cart in a price-cutting orgy, this hope is likely to be realized.

—o—

Alkali Stability

A SHARP downward revision of alkali price schedules just at the turn of the year came at a time when the alkali market was about as close to demoralization as it had been at any time since the post-war deflation. The reluctance of large consumers to make contract arrangements for 1931 at price levels which were only slightly under those of 1930, brought about a fight for business which engendered severe price-cutting. During the closing months of 1930, the alkali market and price situation lost its usual semblance of stability and order. Schedules meant little or nothing and the market came close to resembling a free-for-all dog fight. Production of so-called "outside" brands, with usual outlets badly clogged or cut off altogether, especially export outlets, found its way into such channels as were open, with the inevitable consequence of price cutting.

When it was quite obvious that the originally announced price schedules had lost their significance, leading producers apparently realized that nothing short of drastic action would prevent further demoraliza-

tion. They met the situation by slashing scheduled prices from twenty to thirty per cent under those originally announced for the year, naming an "official" contract schedule with solid caustic soda at \$2.45 and soda ash at 92½c. At these levels, the market resumed something akin to its normal stability.

Although the situation was apparently enjoyed by some large consumers who had refused to make commitments for 1931, the market faced a chaotic condition which might have had serious consequences throughout the entire alkali industry. A stabilized alkali market is just as much to the advantage of consumers as to producers. Alkalies are not products which can be produced, sold, bought or consumed advantageously over a period of time in a haggling market. As with sulfuric acid and other basic manufactured commodities, the stabilization of alkali prices over a yearly period is essential to economic production and distribution. If that stabilization can only be accomplished at lower price levels, then it is for the producers to determine those levels which are satisfactory to themselves and consumers. The drastic step which producers took was probably the quickest and most effective means of securing the desired stability. Consumers will in all probability be far more willing to take on full requirements under the new conditions.

Replacing Equipment

REPLACEMENT of worn or obsolete equipment can be made at two times,—first, when the money is available to pay for it,—and second, when the time is propitious as a result of reduced activity in the plant. With most companies, interference with plant operations is the chief drawback to putting in new machinery or repairing the old. Where plant operations have been cut down, and in some instances shut down, due to lack of business as has been the case with many companies during the past six months or a year, the time seems ripe for making the necessary replacements. However, most companies hate to spend money when business is slow. They would rather struggle through the numerous inconveniences of equipment changes when their plants are busy. It is easy to understand. Everybody is more willing to spend money when business is good.

If we were to accept the attitude of many business men, every time there is a slump or business falls off, they go on the supposition that the dullness is going to last forever. Maybe business will never pick up again! This is an attitude for which many a supposedly far-seeing executive has been sorry in the past. Business resumes and the needed new equipment has to be installed in the midst of a plant running full speed. Delays, inconveniences, lost production, late deliveries,—oft have they brought the wish that the work has been done when the opportunity presented itself. It is human to wait, but it is frequently poor business, and expensive. If you need new equipment, why not take the opportunity to install it now? A few months hence, you may wish that you had.

Creosote Oil

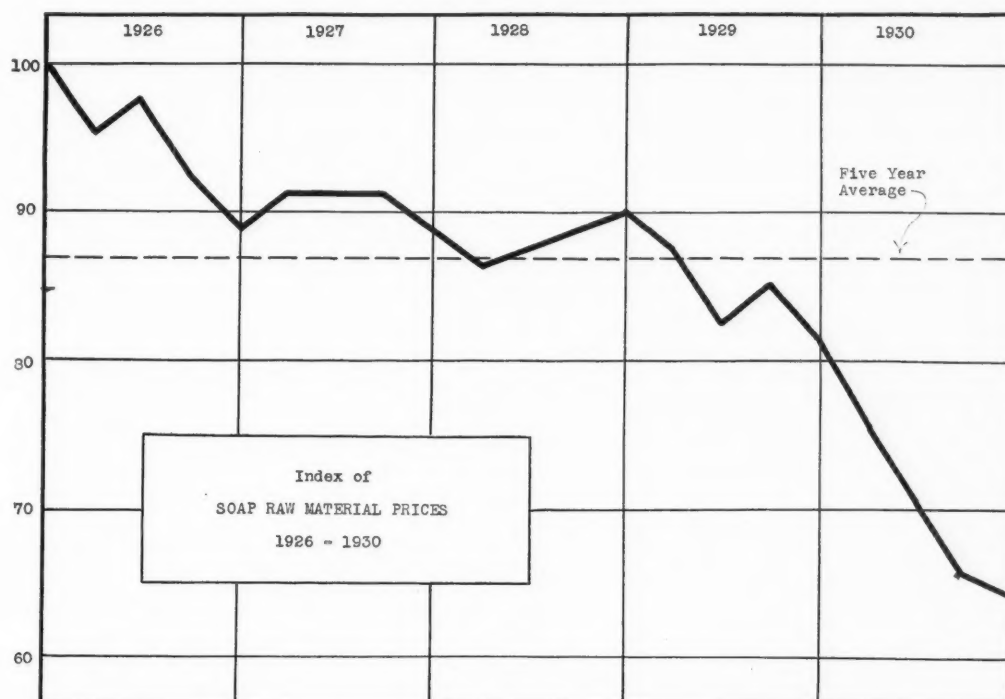
Atremendous gallonage of creosote oil is imported every year in the United States by railroads for use in wood treating, principally railroad ties. The same condition is apparently true in Canada. In Central and South America, the imports of creosote oil are quite evidently necessary as the railroads have only a small domestic production upon which to depend. In the case of the United States and Canada, however, there is an adequate home production of creosote oil. And yet, millions of gallons are imported by the railroads alone because they are available at lower prices.

We should imagine that if there is one particular group which should go miles out of its way to place business within the territories which it serves, it would be the railroads. They depend for their living on freight hauled for customers along their routes. They cannot turn elsewhere for business. Why then do they go to Europe to buy materials? Would it not be logical to place every dollar's worth of business as near home as possible?

The United States Treasury Department has recently invoked a section of the tariff act to cut down importations of foreign-made perfumes where United States rights are held by American concerns. Travelers may in future bring in only one bottle of any brand, the trade-mark of which must be destroyed.

United States Tariff Commission has set January 27 as the date for its hearing on the investigation of costs of producing olive oil.

The Raw Material Markets Reviewed

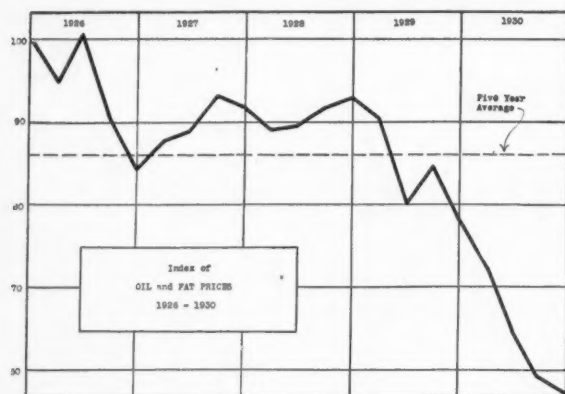


BUSINESS generally needs no reminder that the year just closed was one of the worst of the past quarter-century. A decline in commodity prices continued throughout the entire twelve months. There were no upturns; the movement of prices was steadily downward without interruption. Every index of business,—bank clearings, railroad car loadings, employment, security prices, commodity prices,—pictured a steady decline which was more rapid during the latter six months of the year, but which showed an inclination to slow down toward the close of the period. The year ended with general commodity values closer to low ebb than they have been at any time since the world war. The commodity price index of the U. S. Bureau of Labor Statistics stood below 78 for December, 1930, as compared with 93 a year ago, and with a basic average for 1926 of 100.

Judging from the innumerable averages, indexes, and the like which have been put forward to indicate the status of business, America closed

the year with the consumption of goods running 35 percent below normal. It is not believed that the consumption of soap products has dropped off to anything like this extent based on an average of the past five years. Competition has naturally brought lower soap prices, but the decline has probably been tempered by a less severe reduction in demand than in most commodities.

As far as can be gathered, inventories of raw materials in the hands of consumers generally are at low ebb. That there should have been a tendency to reduce raw material stocks and to buy from hand-to-mouth during 1930, is to be expected. Many contracts for materials normally written well before the end of the year, are reported still awaiting the action of consumers this year. This hesitancy or refusal of buyers to cover for normal requirements is nation-wide, and is unquestionably one of the major causes of the continuation of depressed business conditions. At the same time, low consumer inventories represent the technical strength of the present raw material



markets, and a potential danger to all purchasing agents.

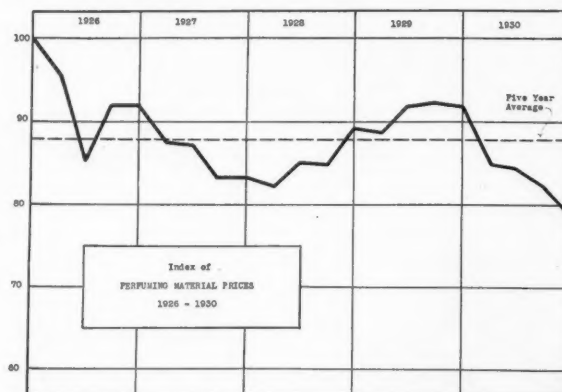
DURING the past year, the general average of prices for all the raw materials used in the manufacture of soap dropped approximately 17 percent. This substantial reduction, which followed a 10 percent drop in 1929, has brought the cost of soap raw materials down to the lowest levels which have prevailed in fifteen years, and has made it possible for some of the larger soap manufacturing concerns to report increased profits in the face of the severely depressed condition of industry in general.

In the chart showing the movement of soap raw material prices over the past five years, calculations are based on price movements of a representative group of thirty oils and fats, chemicals and perfuming materials, weighted according to their relative importance. The group of ten oils and fats is given a value of 60% in making up the composite chart, while the ten chemicals and the ten perfuming materials are figured at 20% each, in an attempt to give a rough approximation of the relative importance of the various groups. In the charts, the price level for January, 1926, is taken as the base or 100 point, and the indices for the other months express the relation of prices then prevailing to the January, 1926, level.

A comparison of the five-year average of 87 with the January, 1931, reading of 64 shows a difference of 23 points, or 26%. Only once during the last two years has the reading been above the average level. The downward movement started in January, 1929, and in only one three-month period since then has there been any price movement which was not a decline. The movement was interrupted in the July to October period of 1929, but with this one exception, the drop has been precipitate and surprisingly uniform.

THE most severe decline in soap raw material prices occurred in the oil and fat group, as the chart for that group shows. The ten com-

modities used in making up the index were: coconut oil, corn oil, cottonseed oil, yellow grease, commercial olive oil, Niger palm oil, red oil, stearic acid, tallow and whale oil. The general index for the ten items, based on a January, 1926, 100 point, stood at 78 on January 1, 1930. By the close of the year the reading had dropped to 57, a reduction of 27%, setting a new low mark for fat and oil prices in recent years. The decline was not confined to any limited number of oils, but was widespread. Every oil used in making up the index dropped in value during the year, the declines ranging from 5% to 30%. This remark-



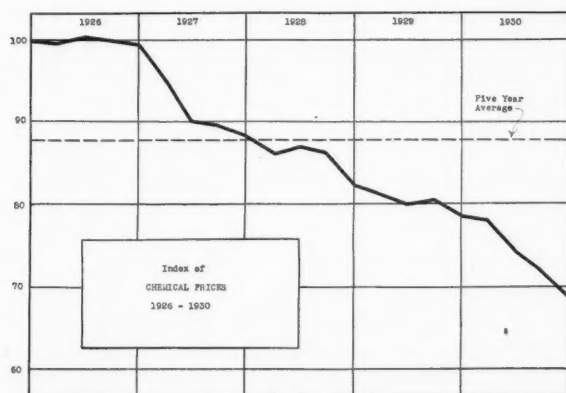
able reduction in costs on the most important raw materials used by soap makers accounted for the major portion of the drop in the general average. It is interesting to note that the curve for the general average of soap raw material prices and the curve for oil and fat prices are of exactly the same type, the only difference being that the oil and fat curve shows a more rapid and severe decline. Both show the steady drop from January, 1928, with the exception of the upward turn in the July to October 1928 period, and both show the same plunge under the five-year average figures.

Coconut oil opened the year in a weak position, priced at 6¾c. lb. for coast tanks. It continued weak throughout the year, in spite of repeated reports of short copra arrivals in Manila. The low point came in September when copra dropped to 2.90c. a pound and coconut oil coast tanks to 5c. a pound, record low levels for recent years. Tallow, the other principal ingredient of soap, likewise went through a disastrous season. Opening the year with city extra material priced at 7½c. lb., it fell off regularly each month due to the failure of demand to equal the large supplies which were offered. The countrywide drought which was encountered late in the summer months served further to depress tallow prices, as grazers shipped large quantities of cattle to market when the food shortage developed. This resulted in a

flooding of the tallow market which brought prices down to 4½c. lb. at the close of the year.

The report of a shortage in the olive crop occasioned a sharp advance in the price of commercial olive oil and olive oil foots late in August, after a long period of abnormally low prices due to the bumper crop of the year before. The smallness of the crop was confirmed, but its importance was later minimized due to the large carryover from the previous year, and prices declined again. Corn oil also provided some excitement during the late summer on the report of damage to the grain crop as a result of the drought. The weakness of competing oils prevented any considerable advance in the price of corn oil, however. One of the most important factors in back of the whole oil and fat market is the prospect of another increase in whale oil production. With a new record breaking crop expected from this quarter and with the prospect of plenty of cheap supplies to depress other oil prices, buyers continue to hold the whip hand in the oil and fat markets.

THE chart depicting prices of chemicals for the past five years shows a more uniform movement than the charts for the other two groups, as might be expected for a more stabilized industry. The decline has been steady over the five-year period, averaging about a five point drop each year. With this regular movement, the

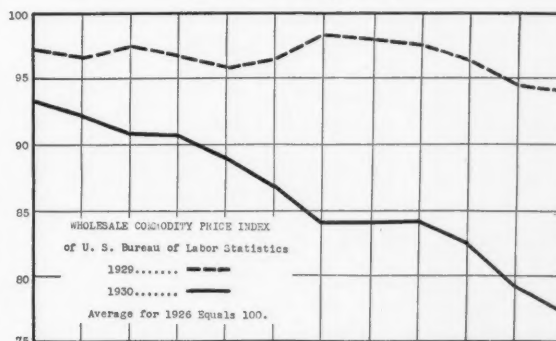


chart, of course, shows prices for the first two years to be above the average and prices for the past two years to be consistently below the five-year average. The drop has been accentuated in the past few months due to severe competition on a number of items which are particularly important to soap makers. The ten weighted items used in making up the index are borax, fullers earth, glycerin, caustic potash, pumice stone, rosin, caustic soda, sodium silicate, soda ash and trisodium phosphate. The index reading of the prices for these commodities stood at 78 in January, 1930, as compared with the January, 1926,

base point of 100 and the five-year average of 88. By January 1, 1931, it had dropped 9 points to 69, a reduction of 11% during 1930.

The outstanding feature of the chemical market during the past year has been the competition which has developed in alkalis. With production expanded to meet the demands of the boom period of eighteen months ago, and consumption at the low levels which have prevailed during the past year, lower prices have been unavoidable. Although the nominal contract schedule on caustic soda still stands at \$2.90 per 100 pounds for solid material, \$2.45 is the ruling quotation in the open market. Likewise soda ash is being offered at prices well under the nominal quotations, 92c. a hundred pounds being the generally accepted figure. The other principal decline of the year has occurred in the rosins. Here too the situation can be explained by a productive capacity not capable of speedy readjustment encountering a reduced capacity for consumption. The result has again been a severe reduction of prices. For example, WG grade of gum rosin, which was quoted at \$9.25 on January 1, 1930, had declined to \$6.85 by October 1. A slight recovery was noted before the end of the year, the quotation being \$7.85 at the close.

DURING the past few years essential oils have been selling at exceptionally low prices, figures which on the average have been well below pre-war levels. The year 1927 saw a considerable decline from the quotations of January, 1926, as the essential oil price chart indicates. In 1928 a low point for recent years was reached early in the year, followed by a turn upward. Through the latter part of 1928 and 1929 acute shortages in a number of oils sent prices upward, but during the year recently concluded the market has collapsed to a point well below even the 1928 bottom point. The index of perfuming material prices is based on the following ten products, weighted to show their relative importance to the soap maker: oils anise, bergamot, cassia, citronella Java, cloves, geranium Bourbon, lavender, (Turn to Page 59)



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RAHMANLARE, Bulgaria	SAINT-DENIS, Bourbon Is.	CAYENNE, Fr. Guiana
Les HESPERIDEES, Reggio, Italy		MESSINA, Sicily

Say you saw it in SOAP!



Manila is the heart of the Philippine market.—P. & A.

ALTHOUGH the purchasing power of the Philippine consuming public is comparatively low, the Islands share the distinction with Canada of being the largest foreign market of the United States for laundry soap, and the fourth in importance for toilet and fancy soaps. It is estimated that the per capita consumption of imported and locally made soap in the Philippines is approximately three pounds per year. During the year 1924, total importations of soap into the Philippines were only valued at \$467,943. Importations increased during each following year until total imports were valued at \$1,053,711 during 1928. During 1929, however, the total imports showed a decrease of 7½% and were valued at \$977,561. Of this latter total amount, the United States supplied \$941,003 worth, indicating very clearly that this is an American market so far as imported soap is concerned.

The importance of local production in supplying local demand cannot be over-emphasized when studying the Philippine Islands as a potential market for American soap. Official records show that soap manufacturing in the Philippine Islands started as early as 1857. Its growth in the beginning was slow and did not have any real importance until during recent years. Generally speaking, the same antiquated methods of production used in the infancy of this industry

THE PHILIPPINE SOAP MARKET

By HARVEY V. ROHRER

U. S. Trade Commissioner at Manila

are still employed. There are only two modern soap factories in the Philippines, both of which produce laundry soap wrapped and trade marked, as well as yellow, white and blue mottled bars unwrapped. It is estimated that these two plants can produce approximately 9,259,320 pounds of soap or about 210,000 cases per year. Their products compare very favorably with similar imported soaps and offer very effective competition to American manufacturers distributing soap in this area. In addition to these two modern plants, it is estimated that there are approximately 1,000 Chinese soap "factories," so-called, located throughout the Philippines with 45 in Manila alone. Similar "factories" are scattered throughout the Archipelago. In certain large towns there are as many as five or six, while in every town of any importance there is at least one such factory.

The Chinese soap factories have a decided advantage over the modern factories when it comes

to the matter of costs. Their equipment usually consists of one or two kettles and a few wooden frames, together with one or two wire contraptions for cutting the soap into bars, costing in the aggregate very little more than \$50.00 gold. The raw materials are placed in kettles which are built up from the floor of a small shack and the fuel used for cooking the mixture is any cheap combustible material readily available. There are no power or electrical current expenses, overhead costs, taxes, advertising, office expenses or upkeep involved in such an establishment. Even the labor item is of small importance. As a result, the cost of manufacturing Chinese soap is extremely low.

SCATTERED throughout the copra producing sections of the Philippines are a large number of small coconut oil mills with a daily capacity of only a few tons. These mills supply the demand for coconut oil from the local soap factories. According to the Philippine Bureau of Plant Industry, there were 1,639,630 liters of coconut oil produced throughout the Philippines during 1929. It is found that certain local soap factories make their own coconut oil merely by boiling the coconuts and skimming off the oil. It is reported that at times these Chinese soap manufacturers extract a portion of the oil content of copra in this manner and then sell the copra to the buyers of this product in the regular manner. This rather primitive method supplies cheap fat with which to make soap. In addition to the coconut oil used to make the Chinese soap, peanut oil, palm oil, lumbang oil and rosin are at times used to a very limited extent. Rosin and these various oils are utilized to give the soap a yellow color as most of the coconut oil soap manufactured by these factories is white.

The only other necessary raw material is caustic soda which is usually 60 to 62 per cent pure. According to 1929 import statistics, 6,253,125 pounds of caustic soda were imported with a value of \$189,090 as compared with 4,676,499 pounds valued at \$140,674 for the preceding year. Of this total importation, it is conservatively estimated that 80 per cent goes into the manufacture of soap. This increased use of caustic soda is, therefore, a very definite indication of the growing importance of the local soap industry.

THE Philippine Government's Bureau of Science constantly received such a large number of inquiries for information regarding the manufacture of soap that the following

formula was prepared and is being distributed throughout the Islands in large numbers:

"Dissolve one kilo of caustic soda in four kilos of water. This is your stock alkali solution. It is known as lye and contains about 20 per cent caustic soda. In this connection there are several kinds of caustic soda sold in the market, the more common ones are the technical, which contains about 76 per cent caustic, and the purer kinds. For your purpose, buy the technical kind which is cheaper.

"Measure a known amount of this lye solution, say three liters; transfer this to an iron pot; heat it to about boiling; and then add slowly with constant stirring an equal volume of coconut oil. When all the oil has been added, reduce your heat by lessening the fire as this mixture develops heat. Continue cooking and stirring until the mixture becomes homogenous, i.e., the two layers have entirely disappeared, when the saponification is complete. You can easily determine this by thrusting a stick into the mixture from time to time and examining it for globules of oil clinging along the sides. Absence of these oil droplets means the cooking is complete, otherwise you should continue cooking until you attain this stage. When cooking is completed, leave the soap to cool a little in the pot and then transfer it to any suitable mould or vessel. After three or four days in the mould, the soap is ready for slabbing or cutting into pieces."

The soap made from the above materials under the conditions mentioned is usually a fairly high grade soap and has a fat content of approximately 62 per cent. The soap may soften at times due to its high moisture content, but this is not a disadvantage from the average local consumer's standpoint. Such soap usually falls into three major grades. The upper layer of the perpendicularly cut slabs contain a high per cent of glycerine and is at times almost transparent. The middle layer is the average laundry soap and compares very favorably with any commercial made imported soap. The lower layer known as "nigger" contains dirt, free caustic soda and any impurities which may be in the oil. Although a large percentage of the Philippine consumers desire the two upper layers, certain "lavanderas" (laundry women) prefer the lower layer because of the false idea that this type of soap with free caustic soda will clean the clothes easier. This is perhaps one reason why some "lavanderas" cause clothing to deteriorate very rapidly.

The capacity of these small Chinese soap plants varies from one hundred kilos per day to perhaps one or two tons. Although the capacity of no local plant is large, the number of such plants is so great that the annual production is estimated at approximately 25,000,000 pounds.

An Abundance of cheap coconut oil on the spot is the chief asset of the Philippine soap maker.



MANY Chinese soap factories pack their soap in slabs or in large pieces cut to fit a gasoline box. This type of slab or bulk soap is sold wholesale by the kilo, gross for net weight. The retailer of this type of soap usually has his own wire cutter and cuts the soap to suit the demand of the purchaser. The purchaser may desire one or two centavos worth of soap. The dealer accordingly cuts off a piece of soap to meet this particular price. It does not, however, follow that the purchaser gets twice as much soap for two centavos as he would for one centavo since it is more or less a hit-and-miss proposition on the part of the dealer. It is noted, however, that he seldom misses in favor of the purchaser. In addition to the slab or bulk soap, practically all factories make various sizes of small cakes, bars and balls. There is no uniformity of any kind and each manufacturer has his own idea regarding the size and shape of soap required for his particular community. The size is usually based on the centavo value to the consumer and not on weight or quality.

One locality may require a cake to retail at five centavos, the next a cake to retail at two centavos and the next a ball of soap to retail at one, two, three or four centavos. This lack of uniformity in size of soap results in more than one thousand different sizes of bars, cakes and balls of soap being turned out by these various local factories. It would be impossible for either of the two Manila factories or any American factory to meet these various demands as to size and price of soap. These bars, cakes and balls are usually packed in a gasoline or kerosene box. The box is packed full regardless of the fact that no two boxes may contain the same number of pieces of soap. The box is usually sold on the basis of one hundred pieces supposed to weigh a certain number of kilos. On checking prices, it was found that most provincial soap factories

sell on a per kilo basis and at a price at times below the actual cost of production; in such cases profit must be dependent on the difference between gross and net weight.

The product of the factories operated by Chinese is sold wholesale at a wide range of prices running from twenty to thirty centavos per kilo, delivered to distributors' or dealers' door. The price depends entirely on the conditions in the locality in which the sale is made and where the soap is manufactured. No attempt is made at uniformity in price.

The exports of soap manufactured in the Philippines are not large as evidenced by the fact that only 74,903 pounds valued at \$6,800 were exported during 1929. Of this amount, 36,100 pounds valued at \$4,081 were exported to the United States. It is thought that the exports of soap to the United States were comprised of soap manufactured by the two modern Manila factories. Although exports of Philippine made soap are unimportant at the present time, it is possible that they will increase in importance to nearby countries in the future.

(To Be Concluded)

This survey of the Philippine production and consumption of soap products by Trade Commissioner Harvey V. Rohrer at Manila comes to *Soap* through the courtesy of the Oils and Fats Section of the Foodstuffs Division of the Department of Commerce. It is based on a detailed study of the soap situation in the Philippines by Mr. Rohrer—THE EDITORS.

Flora Aromatics Co., New York, recently moved its offices to 920 Broadway where larger quarters have been taken.



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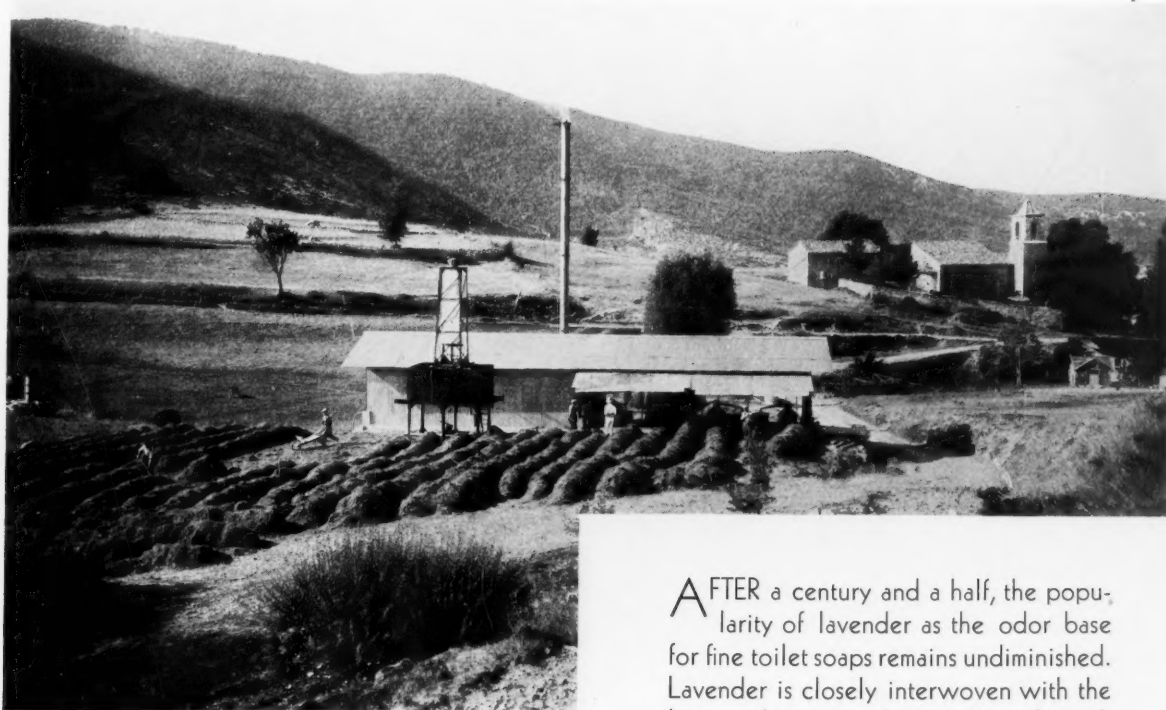


Monsanto Chemicals



Say you saw it in SOAP!

LAVENDER



THE use of lavender in perfumery dates back to 1777. At first it was only used in toilet-vinegar. At the present day, the oil is almost entirely used in the manufacture of toilet-soaps, although a minute proportion enters into the composition of perfumes and toilet-waters. Its use in perfumes is limited: the extracts of Chypre, Sweet-briar and fern, for which it is suitable, contain comparatively little, and, in our opinion, its use should be extended. It would be so natural that the perfumery industry should make a wide use of this essentially French product, seeing that the perfumer by exercising a judicious choice, can find in lavender oil a whole gamut of richness and of delicate features.

In order to appreciate the quality of a lavender oil, it has become customary to attribute great importance to the content in ethers. This, however, is only one element of appreciation which is and will remain subordinate to olfactory examination, for it is not in itself sufficient. The lavender oils of the county of Nice, very poor in ethers (20 to 29 percent), very light and soluble, have a per-

AFTER a century and a half, the popularity of lavender as the odor base for fine toilet soaps remains undiminished. Lavender is closely interwoven with the history of soap manufacture down through the years. In this, the second article on this important soap perfume, *Etablissements Antoine Chiris at Grasse*, through *Les Parfums de France*, tell more of its production, characteristics and uses.

fume of such delicacy that they are, at the first examination, placed in the first rank. Nevertheless their scent has the serious drawback of being extremely volatile and lacking in permanence, especially in soap, the manufacture of which, as above stated, absorbs a large proportion of the production.

Consequently the Nice oil, which is similar to that of Italy, will, for the prudent perfumer, only find employment in the fabrication of toilet-waters. The oils which should occupy his attention for fine and delicate perfumes are those from the district of Barrême-Saint-André and from the valleys of the Jabron and the Méouge, which are extremely delicate, with an incomparable aroma much appreciated by connoisseurs. These locali-

ties may be considered as producing the best oils.

Certain other oils have a special perfume, an odor of the soil, quite peculiar to them, such as those of Cipières, Gréolières, of Coursegoules and Mont-Cheiron. Speaking generally they show on an average $\frac{3}{4}$ percent of ethers. Their peculiar odor detracts a little from their delicacy, but it grows less strong and improves as we leave the slopes on approaching Castellane. Certain others have a scent resembling that of truffles, others remind one of mushrooms, a flavor less pleasant, in my opinion, than that of rennet-apples found in most of the lavender oils of the Diois.

Producing the Best Oil

IT IS not long since the only process employed in practice for isolating the perfume of lavender was the distillation in steam which produced the well-known essential oil. The various processes of distillation have been carefully examined with a view to preserving as far as possible the odorant elements of the flowers from the sometimes destructive action of the boiling water or even of the steam alone. Since the time of the old stills heated over an open fire and in which the flowers were immersed in water heated to boiling-point, there have been a large number introduced in which the flowers have been carried on a grid above the boiling water, and at the present time every modern distiller of lavender employs a steam generator apart from the still, the important advantages of which were demonstrated by Schimmel & Co. as far back as 1905.

It had been recommended amongst other things by several practical men to continue to exhaustion the distillation of each load of flowers, not only to extract the whole of the oil, but because the fractions most rich in ethers would pass out at the very end.

The experiments we have carried out with this object prove that this idea does not quite tally with the facts, at least when the usual sort of still is employed. Such stills are fitted so as to allow rapid and easy passage to the steam and oil vapors, and their tubular system of discharge into the refrigerator in no way assists in the separation of the constituents of the oil in the order of their volatility or their chemical functions, a separation already rendered very imperfect by the physical reasons which govern the process of distillation under steam.

There is no appreciable enrichment of the successive fractions and the scarcely noticeable variations in the physical features of the liquids collected lead to the conclusion that their composition is practically identical. We would, however, point out that the olfactory value of the portions separated decreases regularly, and this becomes more

marked after the third. Practically all the scent of the oil is concentrated in fractions 1 and 2, collected within twenty minutes, and represents 78.4 percent of the total yield. It is not therefore advisable to carry on the distillation of the flowers too long, inasmuch as, for an insignificant gain in weight and ethers, there is a risk of altering the delicacy of the oil, besides the waste of time and fuel.

Here again is seen the importance of the content of oils in free alcohols. In spite of its superiority to fraction No. 1 in ethers, fraction No. 5, contains one-sixth of free alcohols, and possesses a very inferior olfactory value, though exhibiting otherwise all the characteristics of a normal oil.

Pursuing further the path towards protection of the odorant elements of lavender at the time of distillation by steam, it might be thought that they could be protected still better by lowering the temperature of the live steam employed, that is, by injecting it into the still where a reduced pressure prevails. Experiment does not afford grounds for this expectation, for, under a pressure of 100 mm., we obtained by this means, with a yield two or three times smaller, oils which were poorer in ethers, with a weaker scent than the corresponding oils distilled from the same flowers in the usual manner, although delicate and having normal constants.

It seems therefore that if the lower temperature may attenuate the hydrolysis of the ethers, the rapidity of the flow of the oil being diminished, the more prolonged action of the steam leads finally to lower proportions than a rapid distillation at a temperature in the neighborhood of 100° C.

Solvent Extraction

IT IS besides not certain that distillation by steam is the process most appropriate to the complete extraction of the odorant elements of lavender flowers, and to preserve the quantitative relative proportions existing between them in the flower. Oils of very different quality may be obtained from the same vegetable matter according to the speed of distillation, the size of the load and the care taken to prevent any condensation of steam inside the stills.

Account should also be taken of the proportion of oil carried off by the distillation water poured away, which is not negligible. According to our tests, this may represent, according to the quality of the flowers and the temperature of the water poured off, from 2 to 5 or 6 percent of the direct oil. This percentage of oil, which may be recovered either by exhausting the water with a volatile solvent or by redistilling it, is particularly rich in



The lavender fields of France are famous the world over.

free alcohols which have been subtracted from the direct oil.

In the oils obtained by extract from the water by solvents, we noted contents in ethers from 25 to 32 percent, and in free alcohols from 50 to 60 percent. Those obtained by re-distillation of the water after intense hydrolysis showed not more than 1 to 13 percent of ethers and 75 to 90 percent of free alcohols. They generally possessed a very mediocre scent after recovery, and producers who are careful as to the quality of their oil do not mix them with the direct oil.

We have thus been among the first to apply to lavender flowers, in order to obtain their complete and genuine perfume, the process of extraction by means of cold volatile solvents which we introduced into the perfumery industry more than thirty-five years ago. The hearty welcome accorded by the perfumery world to lavender perfume obtained by solvent extraction the method above described is significant. The new note of warmth, breadth and depth of the concrete and absolute oils of lavender corresponds better than the distilled oils to the odor diffused by the plant itself in flower when one stoops over it on a warm summer's day. This is comprehensible, because extraction from the flowers without heating, by a solvent which is itself eliminated later on at a low temperature under reduced pressure, could neither alter any of the odorant elements nor change their proportions. The compounds, relatively soluble in water or hardly volatile in steam, which are absent from distilled oil, are present complete in

the perfumes obtained by extraction, which permits us to obtain remarkable effects in scents and especially in fine toilet-soaps.

It is true that lavender oils obtained by extraction cannot be produced so easily as the oils distilled by a great number of producers on a small scale, and their provision in a form which facilitates their use necessitates somewhat delicate operations only to be performed by well-equipped and experienced firms.

The oils obtained by extraction contain the whole of the elements included in those from distillation with steam from the same flowers, and we may emphasize the progress marked by the former process by remarking that a concrete oil obtained by means of petroleum ether, with yields of 1 to 1.2 percent, gives by distillation with live steam 40 to 50 percent of perfectly normal oil, and that the portion not carried away by the steam still retains a very appreciable odorant power which is lost when the flowers are simply distilled.

Prices and Production

THE price of lavender oil depends upon the percentage and fragrance of its ethers. The percentage differs according to the country where the crop is produced and the mode of distillation. The system most used in small places in the south of France consists in putting water and flowers into the still, which is heated over a naked fire.

With the dry steam distillation, it is possible

(Turn to Page 77)

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Say you saw it in SOAP!

TRADE MARKS and the CAPPER-KELLY BILL

By WALDON FAWCETT

WHEN Congress made known recently, its intention at last to take up in earnest the Capper-Kelly Bill, it touched off, doubtless unconsciously, the most powerful incentive to trade marking that has come in this generation. Many manufacturers and even a larger proportion of merchants had come to believe that there was no chance that legal authority would ever be given for the fixing and enforcement by producers of the prices at which their products must be resold. A favorable recommendation by the U. S. House of Representatives Committee on Interstate and Foreign Commerce, followed by the promise of the Rules Committee that price maintenance should be put to vote, suddenly gave reality to what in the estimation of skeptics was a dream of twenty years standing.

The practice of trade marking rides to new eminence as a business practice on the wings of this legislative development because, in the Congressional contemplation, the privilege of dictating uniform resale or retail prices should be accorded only to goods under trade mark, brand or other similar identification. Facing this prospect, firms that had no love for trade marking for its own sake, might conceivably be led to join the procession. Other houses, proverbially marketers of anonymous commodities might be moved to cast an anchor to windward to the extent of branding a portion of their output against possible future need of price stabilization.

It might have been predicted, indeed it was foreseen by shrewd observers, that the predicating of resale price control upon authentication of the goods would bring a stampede to factory-marking and the naturalization of import-marks. What was not foreseen was the sharp spurt in private branding or private labeling which has come as a sequel to the elevation of the price maintenance issue. This is a development that is of particular significance in the case of commodity lines such as soaps, disinfectants, and shampoos which lend themselves most readily to

marketing by proxy at wholesale and retail levels.

SIGNS that Congress had commenced to take seriously the representations of the American Fair Trade Association and other organized rooters for resale price protection was, of itself, sufficient to prod many makers and marketers of goods to qualify for trade mark ownership. There is no question, though, but what the urge was made doubly strong by the tension of a sub-normal business season and by the latter-day conditions of competition which have come about in part because of business recession and in other part, because of the sharpened rivalry between powerful chain systems on the one hand and on the other hand, independent retailers and the voluntary chainsters who have united for protection against chain competition.

Manufacturers, fearful of the price demoralization that so often attends business rearrangement, have looked, lately, with increasing favor upon brands because it has been conclusively demonstrated that in time of competitive stress, goods under established trade marks yield less to price pressure than do the unbranded. Merchants, meanwhile, have been feeling a similar impulse, born of the belief that goods under "own label" or private brand are automatically lifted above price comparison and price competition. Jobbers and wholesalers in particular, and large retailers in lesser degree, are imbued with the desire to reinforce the advantage of individuality-via-brand with compulsory price standardization. That they may be eligible for the benefits of the Capper-Kelly Act, if it comes, canny marketers of private brands in local areas or regional territories are quietly extending their distribution to the dimensions of interstate commerce where it previously did not cross state boundaries.

To add zest to the whole subject of the grooming of trade marks in anticipation of Congressional sanction of resale price regulation, behold the surprise which came late in 1930. At the Atlantic City meeting of the Associated Grocery Manufacturers of America, the alarm was

sounded that private-branded goods would not be eligible for pricing-from-the-source under the bill pending in Congress. This charge, if sustained, is of moment not only to all distributors who control or own in fee simple house-brands, but in equal degree to the contractors and manufacturers under stock formulas who outfit the majority of private label owners. In more cases than might be supposed, even the owners of national brands would be affected directly as well as indirectly. Because, for all that the major portion of privately-labeled wares continue to be supplied by private-branders-to-the-trade, who specialize in "ghost" operations, the exigencies of mass production have led more and more owners of proud factory-brands to dispose of surplus production under chain-mark or jobber-label.

Accusation by Charles Wesley Dunn, Counsel for Associated Grocery Manufacturers that private brands will be denied participation in price stabilization is based on the wording of the Capper-Kelly Bill as redrafted in the Commerce Committee and favorably reported by the majority of that committee. Resale price contracts are to be confined to commodities bearing the producer's mark, brand or name. The term "producer," appearing in the text, is not specifically defined to include a dealer. Critic Dunn insists that even if a private brander had his pet label merchandise made especially to his order and even if he habitually filled orders for that merchandise in more than one state, yet would he be beyond the pale of the price-fixing concession. Indeed, he would be technically liable to the penalties of the Sherman Anti-Trust law if he made contracts for price maintenance on private brand goods.

To all of this theory of a double standard for trade mark owners the reply of nonsense, is made by the authors of the Capper-Kelly Bill, the officers of the American Fair Trade League and others interested in the legislative program as is. They find their comfort in the fact that U. S. trade mark law and the Regulations for registration growing out of it recognize a parity between the maker of goods and the trader who selects and sells the goods. Dr. Crichton Clarke, Counsel for the American Fair Trade Association insists that existing trade mark law construes the owner of a private brand trade mark as being the producer, grower, packer, maker, manufacturer or publisher of his product. "The private brand trade mark is as good as any other kind of trade mark," he says, and declares that a vendor may bind his vendee as to resale price without regard to whether the vendor is the first, second, third or fourth owner of the commodity.

IN a statement to the writer, Congressman Clyde Kelly, author of the bill which has brought price maintenance to a show-down, said: "The entire purpose of my measure is to legalize an agreement between the vendor and the vendee of a trade-marked product which is in competition with others of the same class. The Bill as now written will legalize such a contract made by a wholesaler or the owner of a private brand." In thus citing wholesalers as within the range of price protective compacts, Congressman Kelly was undertaking to allay any apprehension that may have been occasioned by another last-minute alarm.

This secondary alarm came of the spread of a rumor that the changes in the Resale Price Fixing Bill made by the Commerce Committee of the House must operate to deny the right of price-fixing to wholesalers. As this gossip had it, the new deal would permit price stabilizing treaties only between the manufacturer or primary marketer and a retailer to whom he would sell direct. Congressman Kelly points out that whereas the rewritten bill specifically authorizes a manufacturer or producer to contract with wholesalers in respect to resale prices, it likewise enables the jobber or wholesaler, in his turn, to contract for price observance with retailers, agents, canvassers or other ultimate distributors so that the manufacturer is fully protected in his final resale price.

All the leaders of the movement for list-price-enforcement are agreed that the cause should stand or fall on its present terms. Incident to the intimation that he would accept the redraft of the measure as it came from the House Committee, Senator Arthur Capper, stating his position to the writer, said: "Mr. Kelly and I are in entire agreement in our stand against any further changes in the proposed legislation, I will undertake to get it through the Senate in the form that it was reported by the House Committee."

This expression indicates clearly what must be expected by business men who desire Federal support for nation-wide systems of standard retail prices. But with all the clarification of the subject, we have no further details regarding the obligation to present every price-placarded item under trade-mark, trade-brand or trade-name,—the prerequisite of every scheme which has been proposed to date for resale price protection. Presumably the sponsors have felt that with the demand laid for trade mark identification the means are self-evident, or may be safely left to the resources of the marketers.

(Turn to Page 80)

Alkali Prices Cut Sharply

FOLLOWING a three-months period of severe price cutting just preceding the first of January, a sharply lower schedule of alkali prices was announced by leading producers. Caustic soda solid carlots on contract was cut to a basis of \$2.45 per hundred and soda ash prices were slashed to a basis of 92½¢ per hundred bags at works. These figures compared with previously announced 1931 contract prices of \$2.90 for caustic and \$1.32 for ash. The new schedule of lower prices was put out by producers in an attempt to stabilize the market which had been upset by excessive competition and price cutting.

That heavy excess stocks of alkalies, mostly in the hands of makers of non-standard brands, were being forced for sale at cut prices, has been common knowledge in the trade for some time. With the export markets taking only a small portion of their usual needs, these stocks were thrown back on the domestic market with a naturally depressing effect, and it has been the attempt to move these stocks, plus the accumulations from a general slowing down of domestic consumption, which weakened the market.

Rumors of prices for ash and caustic, prior to the announcement of a lower official schedule, named figures far below any which had been heard of during the past ten years. Consumers balked at paying prices at or near the figures given in the original schedule as announced a month or so before the first of the year. Some producers sought to get-in contracts by dropping under the schedule, and in retaliation, other producers dropped still further. In a short time, the schedule had no significance and the market had degenerated into a price cutting fight for business.

For smaller quantities, reports of low prices were not numerous, but on large contracts, it was reported that more sales were made nearer \$2.00 for caustic and 75¢ for ash than at \$2.90 and \$1.32 as called for by the schedule. Most of the producers of "standard brands," that is, those primarily in the alkali business as opposed to those producing by-product electrolytic caustic, were reported accepting less than schedule, but most of the extremely low prices heard were supposed to have come from two or three by-product producers who had large stocks on hand. That these low prices were effective in stimulating consumer interest was to be expected, and shortly after the first of the year, a large tonnage of excess stocks had been contracted for. It was quite apparent that consumers took advantage of the market situation quickly in the belief that the prices too far

below schedule might not last long. That this belief was well founded came with reports that some of the low-priced sellers had about decided to take no more business at the bottom levels and were ready to advance their prices, such advances however, being planned upward from a level which was about a dollar below the official schedule of \$2.90.

Several leading alkali producers, apparently realizing that the hope of stabilizing the market could not be accomplished at figures of \$2.90 and \$1.32, issued new schedules about the first of January which dropped caustic to \$2.45 and slashed soda ash to 92½¢. One announcement was made of prices at \$2.30 for caustic and 90¢ for ash. The announcement of lower schedules had a distinct hardening effect on the market although there were still stocks available below the levels named. It was generally admitted by those in the alkali business that the levels at which transactions had been conducted over the previous two months were materially below cost of production, that the prices were due to the pressure of excess stocks for sale, plus retaliatory price cutting, and that the lower prices could not last long in anything like a stabilized market.

The excess of alkali stocks and the battle for business which they brought about in the alkali industry and among by-product caustic producers, will mean that during 1931, some millions of dollars will be lost to the alkali manufacturers and will remain in the coffers of large consumers. The reduction in alkali costs to the soap industry, which is the largest single consumer of caustic soda and the second largest user of soda ash, will be considerable, especially among the larger manufacturers who have been in a position to take advantage of the low prices which were available for some contract business.

The situation generally has already become considerably better stabilized, and it would not be surprising if another new schedule of prices were issued later in the year by alkali producers after the unsettlement has passed to a greater extent.

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G. A. Wharry & Co., New York representative of the Gum Turpentine Rosin Marketing Association, announce that they are now acting as Eastern soya bean oil sales agents for A. E. Staley Mfg. Co., Decatur, Ill. G. A. Wharry, head of the company, is well known in the trade as being one of the Oil Trades Association of New York's most efficient golfers.



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Exhibit at Cleaners Convention

The National Association of Dyers and Cleaners will hold its 24th annual convention at West Baden, Ind., January 20 to 23. In connection with the meeting an exhibit of new equipment and supplies for the dry cleaning trade will be held at the West Baden Springs Hotel. Among the exhibitors and their displays will be the following:

American Cyanamid Co., New York, showing Konate moth-proofing solution. Exhibit in charge of Mahlon H. Beakes.

Armour & Co., Chicago, showing benzine and tallow soaps and "Liquid Driclene." In charge of T. M. Galvin, assisted by R. A. Weise.

Baltic Chemical Co., Brooklyn, showing wet and dry cleaning soaps and specialties. Grover C. Oberle in charge.

Beltine Chemical & Mfg. Co., Chicago, showing paste and liquid dry cleaning soaps, wet cleaning soaps, rug soaps and pre-spotting soaps. W. K. Earle in charge, assisted by R. H. Burlingame and B. A. McMains.

Darco Sales Corp., New York, showing Darco purifying agent for dry cleaning solvents. In charge of L. M. Gill.

Davies-Young Soap Co., Dayton, Ohio, showing complete line of wet and dry cleaning soaps, rug cleaning soaps, glove cleaning soaps, etc. Exhibit in charge of E. G. Eckerman, assisted by Dr. Ralf H. Trussler, J. Whalen, G. E. Seibert, George H. Young and C. C. Connors.

Eagle Soap Corp., Chicago, showing a complete line of wet and dry cleaning soaps. B. Alexander in charge, assisted by H. H. Hudbrink, D. E. Chittenden and Chas. G. Reinach.

Foree Products Co., Chicago, showing benzine soap, glove soap, pre-spotting soap, wet cleaning soaps and alcohol soap. Miss Carolyn Freund in charge.

Industrial Chemical Sales Co., New York, showing "Nuchar," "Diafilt," chalk and "Pyridine." Exhibit in charge of John P. Harris, assisted by Evan A. Sigworth.

Midland Chemical Laboratories, Dubuque, Ia., showing complete line of soaps, including filter soaps, coconut oil soaps, etc. In charge of J. E. Callender, assisted by Boyd R. Robbins, L. S. Jacobi, W. L. Foxworthy, Warner Cottingham, J. W. Livingston, and A. H. Ryan.

R. R. Street & Co., Chicago, showing complete line of dry cleaning and spotting soaps. In charge of Paul Warren, assisted by W. J. Hohl and E. C. Tipps.

Warren Soap Mfg. Co., Boston, showing complete line of dry cleaning, rug cleaning and blanket cleaning soaps. In charge of Albert H. Bixby, assisted by H. O. Leopold and Karl R. Heft.

Announcement has been made of the acquisition of Fischer Can Co. of Hamilton, Ohio, by Metal Package Corp., New York City. The Hamilton plant will continue in operation with no change in policy as a division of Metal Package Corp., making available more than 150,000 square feet of floor space, and giving Metal Package a ready access to the middle western market.

Eckerman Davies-Young Sales Mgr.

Edward G. Eckerman, who has just completed twenty years service in the sales department of the Davies-Young Soap Company, Dayton, Ohio,



E. G. Eckerman

has been made sales manager of the company, according to announcement from Dayton. Mr. Eckerman during the time he has represented Davies-Young, has covered chiefly Ohio and Western New York, but his work from time to time, has carried him into other territories. In connection with his sales work, he has become known as an authority in the use of potash specialty soaps and has

gained a reputation in solving problems among consumers. During his twenty years with the company, he has seen the products grow from one to sixty-five and has taken an active part in the development of the new products as they have been put out. C. F. Young is president of the company, Russell H. Young is vice-president, and J. F. Wilker is secretary and treasurer.

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New P & G District Managers

Wylie L. Jones, who was sales manager of the Pittsburgh district for the Procter & Gamble Co. from 1909 to 1919, and since 1919, district manager of the Pittsburgh office, retired from active business on Jan. 1, 1931. W. E. Lange, who has been with P & G since 1923, has succeeded Mr. Jones as Pittsburgh district manager. John Z. Heizer became district manager for the Cleveland territory for the company on Jan. 1, and E. J. Zimmerman, manager for the Omaha district, a newly opened office which was formerly under the Kansas City district which is headed by J. B. Green. Paul D. Covey, formerly P & G supervisor at Minneapolis, was made El Paso district manager January 1 to succeed G. W. Knight who retired from active service.

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Allen B. Wrisley Co., Chicago, has recently placed on the market a new, highly concentrated product for the automotive trade under the name Green Glo Oil soap. In connection with this product a new dispensing system has also been introduced in an attempt to assist oil soap users in eliminating waste, securing uniformity and preventing pilferage. The apparatus consists of a pump which is fitted on to each drum, allowing the operator to draw off a concentrated solution without danger of spilling. A locking device is provided to safeguard the contents when the drum is not in use.

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THIS YEAR
+

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SECURITY PRICES

PRICES of stocks of soap, chemical insecticide, and allied companies as quoted on the New York Stock Exchange, Curb Exchange, other exchanges and over-the-counter are given in the following table. This table of prices is compiled monthly for *Soap* by a representative of one of the oldest and best-known brokerage houses in New York.

	High 1930	Low 1930	Dec. 1 1930	Jan. 2 1930
Allied Chem.....	343	170 $\frac{1}{4}$	204 $\frac{1}{2}$	176 $\frac{5}{8}$
Amer. Agric.....	10 $\frac{3}{8}$	1 $\frac{5}{8}$	1 $\frac{7}{8}$	2
Amer. Cyan. "B"....	37	6 $\frac{5}{8}$	10 $\frac{1}{2}$	9 $\frac{3}{8}$
Armour of Ill. "A"....	8 $\frac{7}{8}$	2 $\frac{3}{4}$	4 $\frac{1}{8}$	3 $\frac{1}{4}$
Bon Ami "A".....	78	59 $\frac{1}{2}$	61	60
Brillo	16 $\frac{1}{2}$	5	8	6
Colgate, P. P.....	67 $\frac{7}{8}$	44	50	49
Corn Prod.....	113 $\frac{3}{8}$	65	80	80 $\frac{1}{2}$
Dow Chem.....	100	48	52	50
Drug, Inc.....	87 $\frac{3}{8}$	57 $\frac{5}{8}$	68 $\frac{7}{8}$	63 $\frac{3}{4}$
Du Pont.....	145 $\frac{1}{4}$	80 $\frac{1}{2}$	90	89 $\frac{7}{8}$
Glidden	38	7	9 $\frac{1}{4}$	8 $\frac{5}{8}$
Gold Dust.....	47 $\frac{7}{8}$	29	35	32 $\frac{5}{8}$
Gulf Oil.....	166 $\frac{7}{8}$	58 $\frac{1}{2}$	75	66
Heyden	23	10	12	12 $\frac{1}{4}$
Intl. Agric.....	8 $\frac{1}{2}$	3 $\frac{3}{8}$	4	33 $\frac{1}{4}$
Lehn & Fink.....	36	21	26 $\frac{1}{2}$	25 $\frac{3}{4}$
Mathieson	51 $\frac{3}{8}$	30 $\frac{1}{8}$	37	30 $\frac{1}{8}$
McKesson & Rob....	37 $\frac{3}{8}$	10 $\frac{1}{2}$	14 $\frac{7}{8}$	15
Monsanto	63 $\frac{3}{4}$	18 $\frac{3}{8}$	27	21
Newport "A".....	85	30	45	38 $\frac{1}{2}$
Procter & Gamble....	78 $\frac{7}{8}$	52 $\frac{5}{8}$	65 $\frac{1}{4}$	63 $\frac{3}{4}$
Shell Union.....	25 $\frac{1}{2}$	5 $\frac{1}{4}$	8 $\frac{1}{2}$	8 $\frac{1}{2}$
Sherwin Williams....	85	54 $\frac{1}{2}$	60	62 $\frac{1}{2}$
Sinclair	32	9 $\frac{3}{4}$	12 $\frac{3}{4}$	11 $\frac{1}{4}$
Standard Oil of Cal....	75	42 $\frac{1}{4}$	49 $\frac{1}{4}$	47
Standard Oil of Ind....	59 $\frac{7}{8}$	30	36 $\frac{7}{8}$	37 $\frac{1}{4}$
Standard Oil of N. J....	84 $\frac{7}{8}$	43 $\frac{1}{2}$	54 $\frac{1}{4}$	48 $\frac{7}{8}$
Standard Oil of Ohio..	108 $\frac{1}{2}$	43 $\frac{1}{4}$	53	48
Swift & Co.....	34 $\frac{1}{2}$	27	29	28 $\frac{3}{4}$
Union Carb.....	106 $\frac{3}{8}$	52 $\frac{1}{2}$	62 $\frac{1}{2}$	59 $\frac{3}{8}$
Westvaco	59 $\frac{1}{2}$	18	26	21
Wilson & Co.....	7 $\frac{3}{4}$	1 $\frac{7}{8}$	2 $\frac{1}{2}$	2

Robinson, Butler, Hemingway & Co. moved its headquarters to Bound Brook, N. J., on December 15, the new address being P. O. Box 371, Bound Brook. The factory is located at L-5 Factory Lane, and the research laboratory is on East Main Street. The new telephone number is Bound Brook 700.

The annual Rumanian consumption of shaving cream is said to reach a value of about \$70,000; of this amount the United States supplies approximately ninety per cent. There is no domestic production. Shaving creams sell in Rumania for about \$.43 per tube.

Deupree Sees Better Business

R. R. Deupree, president of Procter & Gamble Co., issued the following optimistic statement concerning future business prospects on December 31st.

"As far as the business of the Procter & Gamble Co. is concerned, we have maintained a regular production schedule throughout the year and warehouse stocks of our products at this time are about normal. The general characteristics of our business are such that the consumption of our products is rather rapid, and heavy stocks are not in evidence at any time. This has been helpful to us in the past year and general sales have been good.

"Our guaranteed employment plan was put to a severe test during the year, but we feel that it has proved satisfactory from every angle. In regard to general business conditions, we cannot help but feel from the history of other periods of depression that we must be very close to, if not actually in, a turning movement.

"We believe that actual consumption in 1930 has been greater than production, that stocks of practically all commodities are now abnormally low, and that the sheer necessity of purchase which must soon take place is bound to be helpful to general business. We feel that there are four very definite factors which make for a better business outlook in 1931, namely—low interest rates, low cost of materials, efficiency of management and efficiency of labor."

An American company has made arrangements, with a Polish firm, for the manufacture in Poland of its brand of toilet soap. Manufacturing operations are expected to begin within a few weeks, with the American company sending over technical men and administrative personnel, and with a central sales organization having headquarters in Warsaw. The retail selling prices in Poland of brands similar to the well known American brand is from 1 zloty (\$0.11) upward. Because of the high tariff on soap, it is practically impossible for imported products to compete with those manufactured locally.

According to a report from Assistant Trade Commissioner Ferrante at Cairo, Egypt, that market is excessively well stocked with Russian soap at present which keenly competes with European soap imported and more especially with the local production which is one of the flourishing industries of Egypt.



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CHICAGO NEWS

CHICAGO Perfumery, Soap and Extract Association held its Annual Election of Officers at the final December noon business meeting at the Midland Club. Enough members were present to cast a generous vote for the regular ticket, which was elected unanimously. The new officers are: President, Harold E. Lancaster of Marshall Field & Co.; Vice-President, Donald M. Clark of Franco-American Hygienic Co.; Secretary-Treasurer, William H. Schutte of P. R. Dreyer, Inc.

Mr. Lancaster is one of the most active as well as one of the most popular members of the club. He is a past president, having served as executive in 1924, and also as vice-president in 1928. He has been chairman of many committees, including the important post of entertainment chairman, and has always been prominent in the Association's social affairs. He thus brings to his office both experience and proved ability. Donald M. Clark, the new vice-president is another member of the manufacturers' division, as distinguished from the supply dealers who are members. Mr. Clark is also a past president, having served in 1922 and he will ably second Mr. Lancaster's administration. William H. Schutte was elected Secretary-Treasurer for his second term, and his record in that office during the past year is second to that of no one who has held that office before. The Association has thus an exceedingly strong group of leaders, and the activities of 1931 will undoubtedly prove the wisdom of the choice.

The committees for 1931, just announced by Mr. Lancaster are as follows: **Executive Committee**, in addition to the three officers, carries the names of C. A. Seguin of C. A. Seguin Co.; and Dudley F. Lun of Givaudan-Delawanna, Inc. **Entertainment Committee**, W. D. Mitchell of American Solvents and Chemical Corp., chairman; Russell Brown of George Silver Import Co.; D. A. Day of Heine & Co.; J. De Lorme of Riviera Products Co.; J. E. Gauer of Fritzsche Bros., Inc.; A. G. Schneider of Victor Chemical Works. **Membership Committee**, H. C. Mac Kay of E. N. Rowell & Co., Inc, chairman; F. T. Robinson of Monsanto Chemical Works; L. A. Solo of Solo Laboratories; C. Christensen of Chas. Pfizer & Co., Inc.; G. Woods of Rossville Comm'l Alcohol Corp.; and W. S. Goff of Florasynth Laboratories. **Golf Committee**, A. C. Drury of A. C. Drury & Co., chairman; R. Downs of Owens-Illinois Glass Co.; G. M. Van Kirk of Hazel Atlas Glass Co.; A. J. Dedrick of Edward T. Beiser Co.; W. Jelly of Walter H. Jelly & Co.; and J. Buslee of Neumann-Buslee &

Wolfe, Inc. **Bowling Committee**, R. Morris of Orbis Products Trading Co., chairman; Paul Pettit of Lady Grey Co.; A. J. Anderson of Superior Paper Box Co.; A. M. Burgh of Marcelle Laboratories; and H. Schwenneke of Eureka Paper Box Co. **Legislative Committee**, F. Z. Woods, chairman; H. Bartold of Norda Incorporated; and R. H. Lingott. **Publicity Committee**, L. J. Freundt of American Can Co., chairman; C. Morgan of Clarence Morgan & Co.; W. H. Muttera of Armstrong Cork Co.; and Euclid Snow of Mallinckrodt Chemical Works.

The Annual Stag Banquet of the Chicago Drug and Chemical Association was held on the evening of Thursday, December 18th, in the North Room of the Stevens Hotel. The affair was as usual limited to members only, and registered an attendance of some 250. The festivities began at 6:30 with a sumptuous dinner and ran until well after midnight with an entertainment comprising ten numbers. The souvenir bags which have been a custom of this dinner for some years, were again distributed. The Committee in charge of the affair was headed by Wm. O'Neill, Chairman, and O. M. Krembs, Vice-Chairman, and consisted, besides, of C. Christensen, Charles Curtis, E. G. Drach, W. B. Erb, E. P. Gibney, H. L. Hopp, H. E. Lancaster, L. A. Lanigan, Wm. Lowenstein, O. H. Raschke, J. P. Sullivan, J. A. Gauer, F. L. McCartney and A. P. Stepan.

According to the U. S. Census of Manufacturers the total production of soda ash in United States during 1929 totaled 2,682,216 tons. The figure for silicate of soda was 591,345 tons. Total caustic soda production, exclusive of the material made and consumed in the wood pulp and textile industries, amounted to 758,800 tons.

The Bureau of Standards of the U. S. Department of Commerce has reaffirmed the standard CS3-28, for cleaners' naphtha sold as Stoddard solvent for another year, beginning March 1. Some revision of the distillation range has been suggested.

Consolidated Products Co., New York, recently issued a new bulletin, No. 31, in which is listed a large assortment of rebuilt machinery for the chemical and allied trades. Copies will be mailed on request.

H. E. Hendrickson of S. Winterbourne & Co., New York, was elected president of American Gum Importers' Association at a meeting held in New York on December 18.



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PERSONAL AND IMPERSONAL

P. Formentati joined the staff of Conti Castile Soap Distributors, Inc., Brooklyn, on January 1 as technical director. He was formerly chief chemist for the Babbitt, N. J. plant of Armour & Co.

Edmund Fougera, formerly with Darnee, Inc., and more recently with Walgreen Drug Co. in Chicago, has recently become associated with R. H. Macy & Co. Laboratories, a division of the Macy department store, New York. Mr. Fougera, in his new connection, will have charge of research and production.

Russell Colgate, who succeeded his deceased brother, Sidney Colgate, as chairman of the board of Colgate-Palmolive-Peet Co., has also taken over another set of duties as superintendent of the Sunday school of North Orange Baptist Church of Orange. This office has been held in the family ever since the founding of the church seventy-three years ago. Samuel Colgate, father of Sidney Colgate, was the first to hold the position.

Robert C. Kelly, in charge of the soap department of John Powell & Co., New York, was elected vice-president of that company effective January 1.

Karbonol Chemical Company, Cincinnati, Ohio, manufacturers of Karbonol and No-Water Hand Soap, has changed its name to Grote Chemical Manufacturing Company. Robert C. Grote heads the organization.

Otta A. C. Hagen for 31 years connected with T. G. Cooper & Company, factors in oils, chemicals, varnish gums and waxes and also other products for the soap and sanitary products industry, has established his own business in the Public Ledger Bldg., Philadelphia. He will be in position to supply much the same materials which he has been handling for many years past. His telephone number is Lombard -0600.

Continental Chemical Corp., Watseka, Ill., manufacturers of soaps, disinfectants and floor dressings, will move its headquarters to Brazil, Ind., early in the Spring, where a three-story, \$75,000 plant is being built.

Armour & Co., Chicago, reports an income of \$21,388,104 for the year ended November 1, before deducting for depreciation and interest requirements, this comparing with \$29,383,209 for the previous year. After deductions and before dividends, the earnings total \$4,741,027, as against \$9,810,518 in the previous year.

Batten, Barton, Durstine & Osborn, New York, advertising agents, recently installed a kitchen for use in making tests and preparing advertising copy for its clients. Most of the equipment and materials used in furnishing and stocking the kitchen were secured from clients of the agency. The Gold Dust Corporation furnished Gold Dust scouring powder, Gold Dust washing powder and Fairy soap; Lehn & Fink Products Co. supplied Lysol and Hinds Honey and Almond Cream; the Silk-Eze Corp. contributed powdered soap; and J. L. Prescott Co. furnished Oxol.

H. B. Bergen, of Procter & Gamble Co. will preside at an industrial relations round-table discussion to be held at the annual personnel conference of the American Management Association at Niagara Falls, February 2 and 3.

Kendall Manufacturing Co., Providence, R. I., makers of "Soapine," has appointed Larchar-Horton Co., also of Cambridge, to handle its advertising account.

Avon Products Co., Avon, Wash., recently enlarged its plant and will add to its kelp products a line of sea hair tonics and shampoos. It is now securing large distribution on its "Joy Suds."

Los Angeles Soap Company increased its productive capacity by one-third on January 1, when it put into operation its new five-story \$250 unit. In continuing its policy of sharing profits with employees the company distributed \$125,000 as the 1930 bonus, this being considerably in excess of the amount distributed last year. The year 1930 proved to be the most successful one in seventy years of operation.

In an attempt to solve the problems of preserving the legibility of the trade name of a soap until the bar is completely used up, Colgate-Palmolive-Peets Co. engineers at the Milwaukee plant are experimenting with the idea of inlaying the name through the whole cake with soap of a different color from the rest of the bar.

Frederick Stearns & Co., Detroit, recently announced the appointment of Ralph E. Hayes as

When it comes
to supplying the soapmaker
with perfume materials, we are in position to furnish
the highest quality merchandise at interesting prices.

When Again in the Market for

Oil Rosemary Spanish
Oil Thyme Red and White
Oil Lavender Flowers French
Oil Vetivert Bourbon and Java
Oil Geranium Bourbon and African

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H. RAAB & CO.
Roermond, Holland
Artificial Musks

VANILLIN FABRIK
Hamburg, Germany
Aromatic Chemicals

Say you saw it in SOAP!

central division manager. He was formerly assistant general sales manager of Lambert Pharmacal Co., and previous to that had been connected with E. R. Squibb & Sons for twelve years.

Henry N. Creger recently received a favorable verdict in his suit against Leonard Abrahams, and is now reinstated as president of Strasska laboratories, Los Angeles, makers of Strasska tooth-paste. This product will soon appear on the market in a series of flavors which includes peppermint, spearmint, cinnamon, wintergreen and cloves. Doremus & Co. have been appointed to handle the advertising account for the coming year, which will feature Charles W. Hamp in a radio campaign.

Soap for cleansing and removing impurities from fabrics preliminary to dyeing has been judged dutiable at 15% by Justice J. McClelland in T. D. 13,399, instead of at 36% as industrial soap. The protesting company was Standard Chemical Products, Inc., New York.

Procter & Gamble Co. paid a regular quarterly dividend of \$1.25 on its 5% preferred stock on December 15 to stock of record November 25.

The appeals of E. H. Bell and W. E. Snelling from the decision of a British court requiring them to refund to Lever Bros. and Niger Co. the sum of \$52,000, have been dismissed by Lord Justices Scrutton, Greer and Lawrence.

Loos & Dilworth, Inc., Philadelphia, have been appointed as distributors of Hercules Powder Co. naval stores in eastern Pennsylvania and southern New Jersey. Jeffrey Stewart, formerly of Stewart & Patterson, Hercules distributors, will be associated with Loos & Dilworth.

Armour & Co. has taken out \$35,000,000 additional group insurance, the cost of which it will share with its employees, bringing its total coverage up to \$100,000,000.

Dewey & Almy Chemical Co., Cambridge, Mass., manufacturers of boiler compounds, is planning construction of a new one-story brick addition to its plant to cost \$45,000.

Rathburn Co. is a new soap manufacturing concern recently organized in El Paso, Texas, by Don Rathburn. "White Lamb" soap is the principal product.

Givaudan-Delawanna, Inc., New York, have recently introduced a new aromatic product which they designate as Moskene. In odor it is classed between Musk Ketone and Musk Ambrette, but is said to be much more lasting than any of the other musks. It is a yellow, rhomboid crystalline structure, soluble in most essential oils, and also

in the following proportions: 8 gr. per Kg. alcohol; 88 gr. per Kg. diethyl phthalate; 100 gr. per Kg. benzyl benzoate.

August Merz, of Heller & Merz, was re-elected president of the Synthetic Organic Chemical Manufacturers' Association at a recent meeting. Other officers for the year are: Dr. E. H. Kilheffer, Newport Chemical Works, Passaic, first vice-president; S. W. Wilder, Merrimac Chemical Co., Boston, second vice-president; Ralph E. Dorland, Dow Chemical Co., Midland, Mich., treasurer, and the following directors, E. G. Robinson, E. I. duPont de Nemours & Co., Wilmington; A. L. Van Ameringen, Van Ameringen-Haebler, Inc., New York; E. A. Barnett, John Campbell & Co., Newark, N. J.; C. A. Mace was re-appointed secretary of the association.

Armstrong Cork Co., Lancaster, Pa., took over the distribution of duPont cellulose caps and bands on January 1, in all parts of the United States except New York, California, Oregon, Washington, Nevada, Colorado, Utah, Arizona and part of New Jersey.

At the 13th Exposition of Chemical Industries which will be held in Grand Central Palace, New York, May 4 to 9, there will be a special section of the exhibit devoted to the container industry. Numerous types of containers and apparatus for filling, weighing, measuring, sealing, labeling, packaging and handling will be demonstrated.

Foamapin is a new non-toxic foam producing product for use in aqueous preparations which resembles soaponin but is free from its toxic properties, and dissolves readily in cold water, which has recently been introduced by Glyco Products Co., Brooklyn. Bead oil is their product for producing foam in alcoholic preparations.

E. La Ronca, who is associated with M. J. Scorelle, formerly of Lundt & Scorelle, New York, recently sailed for Italy to open a branch office in Bari, Italy, in connection with their activities in the sale of olive oil foots to American buyers. Mr. La Ronca, a native of Bari, has been in the United States for several years to acquaint himself with the needs of buyers.

Percy C. Magnus, president of Magnus, Mabey & Reynard, essential oil and aromatic chemical dealers, New York, was elected chairman of the drug, chemical and allied trades section of the New York Board of Trade at the fortieth annual meeting of the group at the Drug and Chemical Club, January 7.

Hercules Powder Co., Wilmington, has recently established a new foreign relations department to co-ordinate sales and development of business in foreign lands. Peter W. Meyeringh, until recently manager of N. Y. Hercules Powder Co., Rotterdam, Holland, has been placed in charge of the new department.

This Trade Mark



On Every Carton

BE DISCRIMINATING

It pays!

Regardless of whether you are buying a machine, a supply of your raw material, or some one of the many other items required for your plant, it pays you to be discriminating.

So, too, in buying DECOLORIZING CARBON, you should be careful. Just any old carbon powder will not do. See that the product you buy has plenty of adsorptive capacity to pull out of your oils and fats those impurities and color bodies hard to remove; that it is heavy enough and of the correct mesh distribution to give a compact but permeable cake in the filter-press, and that it is always uniform. The combination of these and other important qualities you will find only in

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SOAP CHEMISTS' SECTION

(Official Publication, SOAP SECTION, American Oil Chemists' Society)

Recent Japanese Research

BY permission from The Society of Chemical Industry, Japan, we publish below excerpts from the reports covering some of the most recent research on soap and oil chemistry performed in the laboratories of leading Japanese Universities.

Fish Oil Deodorization

By MASAWO HIROSE

According to the author's experiments an odorless soap can be obtained from fish oil, without destruction, by Varrentrapp's reaction in the presence of the wax alcohol (chiefly oleyl and cetyl alcohols) obtained from sperm oil. Good results were obtained by heating herring oil fatty acid at 210-240° C. with 35-42% of caustic soda and an amount of the wax alcohol equal to the quantity of fatty acid used. A larger quantity of caustic alkali is necessary in treating those fish oils of higher iodine number, such as sardine oil.

In the course of the treatment the iodine number of the fatty acid raw material is reduced and its refractive index increased, the latter effect being probably due to air-oxidation. As the wax alcohol is also oxidized to fatty acid, the yield of insoluble fatty acid is considerably greater than the amount of fatty acid originally used. The iodine value of the remaining wax alcohol was greater than that of the original wax alcohol because of the greater volatility of cetyl alcohol over oleyl alcohol during the treatment. The soap obtained by the author's method is comparable in lathering and detergent properties with the laundry soap of commerce. It can be used economically in combination with soaps of beef tallow, coconut oil and the like. The soap was freed from wax alcohol by distillation under reduced pressure and the odorless fatty acid was obtained by decomposition of the soap with sulfuric acid. If pale color soap or fatty acid is desired, the fatty acids can be bleached by known methods.

Silent Discharge Action

By YOSHITORA IWAMOTO

When unsaturated fatty acids are subjected to the action of the silent discharge in an atmosphere of hydrogen or nitrogen, both hydrogenation and polymerization occur. These actions are seemingly dependent upon the existence of double linkages in the acids. It is therefore interesting to examine what may occur when saturated acids

are treated in the same way instead of unsaturated acids. From this point of view, the author carried out some experiments with four kinds of saturated fatty acids; capric, lauric, palmitic and stearic acids.

The experimental results may be briefly summarized as follows:

(1) Capric, lauric, palmitic and stearic acids are all denatured by the action of the silent discharge. In detail, the melting point is decreased, the refractive index and specific gravity increased and the saponification and neutralization values decreased.

(2) The saturated fatty acids, having no iodine numbers at first, show determinable iodine values after reaction with the silent discharge but it is not yet established whether this depends upon newly formed double linkages or not.

(3) The most remarkable phenomenon with solid acids is the formation of viscous liquid acids-polymerized products, the reason for which may likely be explained as follows: By the action of the silent discharge, hydrogen atoms are derived from the fatty acid molecules, double linkages or unsaturated carbon atoms are next formed, followed by combination and polymerization between these hydrogen and carbon atoms.

Surface Tension of Soap Solutions

By JIRO MIKUMO

This report covers the results of an investigation of the effects of acids, bases and salts upon the surface tension of aqueous sodium oleate solutions. The surface tension variations (at 20° C.) of dilute aqueous solutions of pure sodium oleate (prepared from Kahlbaum's acid) under the addition of sodium and ammonium chlorides, sodium acetate, hydroxide and carbonate, hydrochloric, acetic, oxalic, boric and acetic acids were investigated with the aid of a stalagmometer. The results may be summarized as follows:

The effect of electrolytes upon the surface tension of soap solutions varies. Of all ion effects those of OH' and H' are far predominant. Introduction of OH' represses hydrolysis, resulting in loss of acid soap and elevation of the surface tension to its maximum. Further increase of OH' concentration effects gradual reduction of the surface tension as far down as the flocculent point of the solution, where the surface tension again rises very slowly. (Cf. Harkins and Clark, *J. Amer. Chem. Soc.*, 1854 (1925).

Soap Perfume Oils

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LARAGNE (FRANCE) GRASSE BOUFARIK (ALGERIA)

Geranium African

Geranium Bourbon

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As sole agents, in the U. S. and Canada, for
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Perfume Oils, we invite comparison of these
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ON PRODUCTS AND PROCESSES

A patented improved method for providing better quality and structure of soap, consists in subjecting the product to a shaking action during the cooling operation, whereby a good appearance and uniform density is obtained. The method provides more rapid cooling without causing undesirable crystallization. *Brit. Pat. No. 308,985.*

In the determination of the moisture in soap by distillation of the water with xylene, accurate results are dependent upon the form of condenser used. The recommended type is internally suspended with outer jacket. A graduated tube connected to the bottom of the condenser enables the return of clear water-free xylene to the distillation flask. The turbid mixture of water and xylene is then transferred to another graduated tube and centrifuged, the volume of water being read for the percentage determination. *Chem. Ztg. 50,962 (1930).*

In the production of a European soap for metal scouring, 200 parts of horse grease are saponified with a mixture of potash lye, 78 parts at 50° Be., soda lye 6 parts at 36° Be., ashes 26 parts, and water 190 parts, heated to about 100° C. The soap is separated by the usual methods and is of a brown color. A whiter color may be produced by bleaching with peroxides. *Chem. et Ind. Sept., 1930.*

For the production of cheap varieties of liquid soaps a soft transparent soap made with linseed or soy bean oil may be diluted to obtain a solution which will not flocculate, as for example, 3 parts of soap are mixed with 68 to 79 parts of water and 1 part of emulsifying agent. *Chem. et Ind., Sept., 1930.*

Oxidation products of paraffin hydrocarbons may be treated with caustic alkali and the unsaponifiable portions separated out by cooling to 15° C. or lower, preferably in easy stages. The soap solution is filtered out and after neutralization with peanut oil fatty acids, may be concentrated for liquid, soft or hard soaps. *Brit. Pat. No. 308,985.*

Turbidity in soap solutions may be due to hydrolysis or to precipitated lime soaps. The latter may be prevented by the addition of 0.5% potassium chloride or 1 to 3% sugar solution on the basis of the soap solution. *Chem. Umschau Fette, Oele, Wachse u. Harze, 37, 323-3 (1930).*

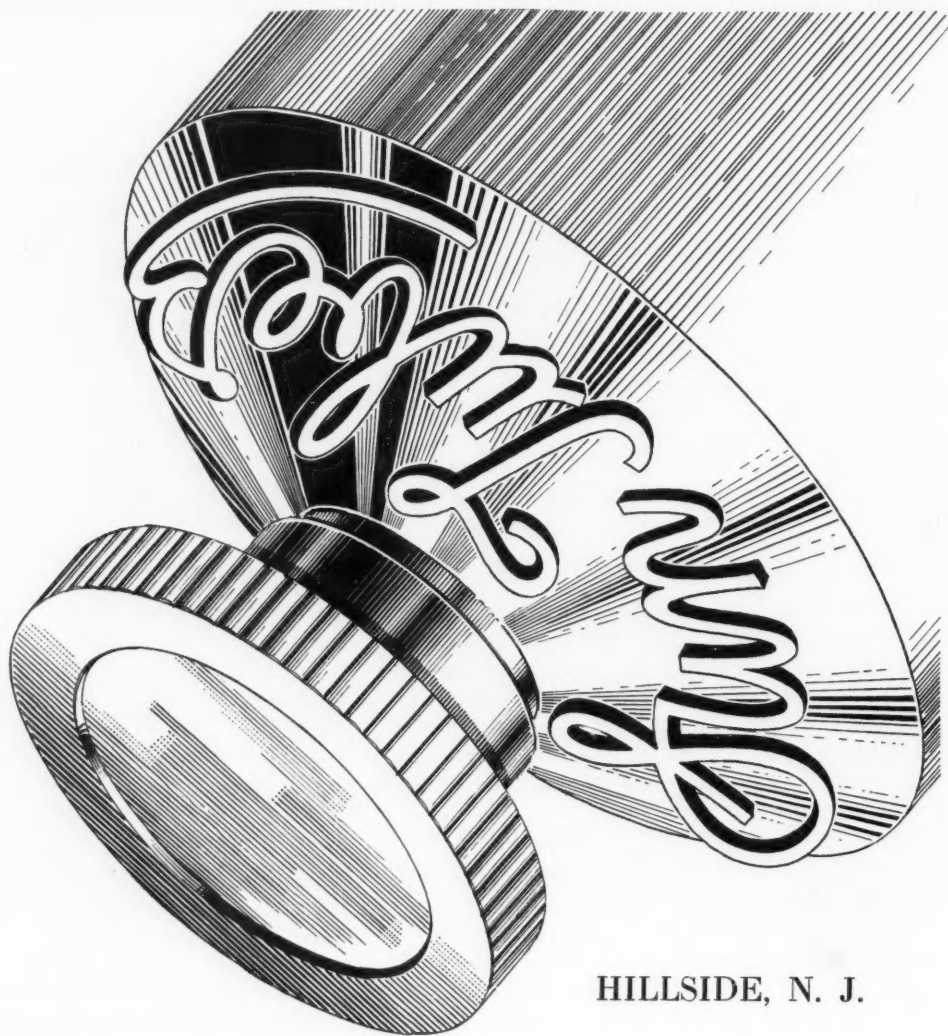
Phytosterin is said to be a valuable constituent of the sulfate soap which is produced as a by-product in the manufacture of paper pulp by the sulfate process. Benzine is the preferable solvent for extraction of the phytosterin from the soap mixture. *Papier-Fabr. 28, 576 (Tech. Sect.) (1930).*

A popular German furniture polish is prepared as follows: (1) 20 parts of linseed oil and paraffin oil are added to 30 parts of petroleum distillate or of dipentene. (2) 10 parts of rosin and 40 parts of yellow wax are fused over a water bath and 250 parts of turpentine added to the mixture. A fat-soluble aniline color may be added before cooling. *Seifensieder-Ztg. 57,643 (1930).*

A recently patented detergent for human skin and other surfaces consists of a mixture of fine sand 37 parts, rock powder 22, soda 4, potash carbonate 2, and rosin $\frac{1}{4}$ part, to which is added 28 parts of potash soap and a mixture of lanolin 1 part, glycerol $1\frac{1}{4}$, and a perfume oil $\frac{1}{20}$ part. *Hungarian Patent No. 99,428.*

The wetting power of soap powders made from oleic acid, higher naphthenic acids or from rosin, is lowered by the addition of soda ash and silicate of soda. The addition of naphthenic acid and rosin to the formula for a soap powder to be used with hard water is said to be most desirable. *Maslob Zhiron, Delo, No. 11, 41 (1929).*

J. Davidsohn, in *Metallborse* 20,1742-3 (1930), reviews Russian contributions on hydrogenation of vegetable oils. Carbon monoxide gas is said to be a poison against the conversion of oleic into stearic acid, but not against the conversion of linolenic or linolic acid into oleic acid. *Chem. Abstr. 27,5519 (1930).*



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. . . in as few words as possible, we sell ideas on tin tube packaging. We know tubes, . . . and know troubles. Most packages have troubles, . . . and *Sun Tube* can eliminate those relating to tubes.

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PRES.

P. S. . . . only good accounts solicited.

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CONTRACTS AWARDED

In a recent Fort Sam Houston quartermaster bidding, Colgate-Palmolive-Peet Co. was awarded the contract for 1,200 pkgs. washing powder for Brooks Field at a price of 18.8c. Also awarded 720 pkgs. Supersuds at 15.4c. and 240 tubes shaving cream at 20c. for Kelly Field. Awarded 1,008 cakes of Palmolive soap for Fort Crockett at 625c. and 500 tubes Colgate shaving soap for Sam Houston at 20c. Awarded 240 tubes Colgate's toothpaste at 15.8c. for Fort Bliss. Awarded 288 cakes Cashmere toilet soap for Fort Huachuca at 14.8c.

Collins Co., San Antonio, awarded 500 pkgs. Gold Dust Washing Powder for Kelly Field at 3.5c.; 648 cakes Camay toilet soap at 5.97c.; 300 cakes Woodbury's toilet soap at 17.5c.; and 4,800 cakes of Palmolive toilet soap at 6c. Be Vier & Co., New York, awarded 6,000 cakes Ivory soap for Sam Houston at 6.85c.; 144 tubes Pepsodent at 30.1c. for Kelly field. Swift & Co., San Antonio, awarded 360 pkgs. Pride washing powder for Kelly Field at 10.8c.; 2,000 cakes wool soap for Fort Brown at 3.43c.; 720 cakes Maxine Elliott toilet soap for Fort Clark at 3.9c.

Procter & Gamble Distributing Co., Dallas, awarded 1,200 cakes Kirkolive toilet soap for Kelly Field at 4.17c.; and 360 pkgs. Ivory Flakes at 19.5c. Lambert Pharmacal Co., St. Louis, awarded 288 tubes Listerine toothpaste for Kelly Field at 14.25c. Lever Bros. Co., Cambridge, Mass., awarded 200 cakes Life Buoy soap for Fort Ringgold at 5.85c.; also 480 pkgs. Lux at 21.6c. T. M. Sayman Products Co., St. Louis, awarded 288 cakes Sayman toilet soap for Nogales, Ariz. at 7c.

The contract for 550 cans of silver polish for Philadelphia quartermaster was awarded to Midway Chemical Company, Chicago, on a bid of 6.5c.

United Chemical Co., Dallas, was awarded the contract for 200 pounds of Darco solvent for Fort Sam Houston quartermaster at a price of 16.5c.

Armour & Co., Philadelphia, was awarded the contract for 2,500 pounds of chip soap for Frankford arsenal at a price of 6.25c. Other bidders and their quotations were: Holbrook Mfg. Co.,

Jersey City, N. J., 6.25c; J. Eavenson & Sons, Inc., Camden, N. J., 6.5c; Swift & Co., Philadelphia, 6.96c.; Procter & Gamble Distributing Co., Philadelphia, 7.19c.; Charles W. Young & Co., Philadelphia, 8.5c.; Crystal Soap & Chemical Co., Philadelphia, 9.5c.

Procter & Gamble Distributing Co. was awarded the contract for 400 pounds of soap powder for Brooklyn quartermaster at 3.5c. in a recent bidding. Ray-Mont Products Co. awarded 220 gals. cresol at \$1.14, and 2,400 cans metal polish at 7.8c.

H. H. Rosenthal Co., New York, awarded 500 pounds moth balls for Sam Houston quartermaster at 6.73c. and 3,000 pounds naphthalene flakes at 5.73c.

Imports of castile soap into United States during October, 1930, totaled 146,852 lbs. worth \$14,894, as against 306,472 lbs., valued at \$35,896 in the same month of 1929. Imports of toilet soap, totaled 184,559 lbs., worth \$62,714, in October, 1930, as against 182,152 lbs., worth \$61,858, in the same month of 1929.

Stocks of crude cottonseed oil on hand in United States November 30, 1930, totaled 114,594,978 lbs., as against 123,485,159 lbs. on the same date in the previous year. Stocks of refined oil held November 30, 1930, amounted to 350,260,359 lbs. as against 326,867,857 lbs. on November 30, 1929.

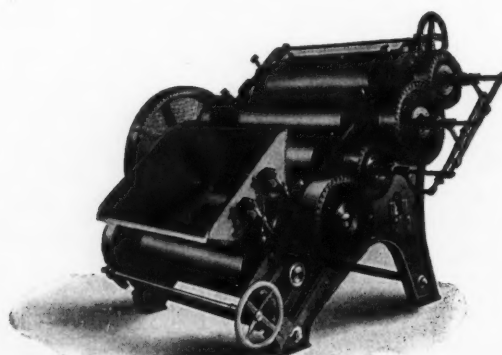
Charles L. Huisking & Co., chemical brokers, moved January 1 from 5 Platt Street to larger quarters at 153 Varick Street. The new building is two stories high and contains 12,000 square feet of floor space.

The annual meeting of the Association of American Soap and Glycerine Producers, Inc., was held in New York, January 14, at which time officers and directors were elected for the coming year.

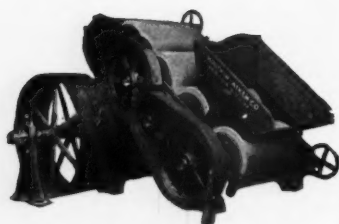
The annual convention of the Laundry and Cleaners' Allied Trades Association will be held in Washington early in May. This decision was made by the board of directors of the association at a recent meeting in Chicago.

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Mills and Plodders
for
American Toilet and Flake Soaps

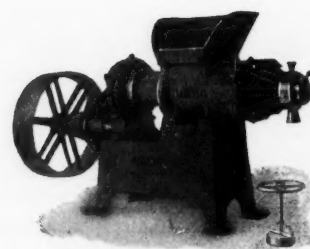


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10" Plodder

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INSIDE AND OUTSIDE. Mills are made with extra large shafts, bronze bushed oil-tight bearings, heavy cut cast iron gears with herring-bone driving gear and pinion.

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NEW JERSEY

HOUCHIN SOAP MACHINERY

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RECORD OF TRADE-MARKS

The following trade-marks were published in the December issues of the *Official Gazette* of the United States Patent Office in compliance with Section 6 of the Act of September 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of publication. As provided by Section 14, fee of ten dollars must accompany each notice of opposition.

Trade-Marks Filed

Pinexo—This in solid letters on cross with circular background, describing cleaning preparation. Filed by Mackie Pine Oil Specialty Co., Covington, La., May 31, 1930. Claims use since Jan. 31, 1928.

Mackie's Pine Scrub Kleen—This on reverse plate, with background of trees, describing cleaning preparation. Filed by Mackie Pine Oil Specialty Co., Covington, La., May 31, 1930. Claims use since May 30, 1928.

Aroma Washing Fluid—This in solid letters on shield describing washing fluid. Filed by Aroma, Inc., Detroit, Aug. 25, 1930. Claims use since Aug. 19, 1930.

Superior—This in outline letters with representation of knight on horse, describing metal polish and cleaner. Filed by Superior Chemical Co., Houston, Tex., Sept. 6, 1930. Claims use since April 29, 1930.

Palene—This in solid letters describing soap powder. Filed by Pal Products Co., Brooklyn, Sept. 8, 1930. Claims use since March 3, 1930.

Sun-Hi—This in outline letters with representation of sun, describing cleaning preparation. Filed by Stanley Chemical Co., Detroit, Oct. 6, 1930. Claims use since July 25, 1930.

Hair-En-Hance—This on reverse plate describing shampoo. Filed by Lawrence Laboratories, Memphis, Tenn., Sept. 5, 1930. Claims use since Aug. 1, 1930.

Bim—This in solid letters describing insecticides. Filed by White Tar Co. of N. J., Kearny, N. J., Oct. 3, 1930. Claims use since Aug. 20, 1930.

Tenn-Creo—This in outline letters describing disinfectants and germicides. Filed by Tennessee Products Corp., Nashville, Oct. 9, 1930. Claims use since Aug. 1, 1930.

Hexspray—This in solid letters describing insecticides and deodorants. Filed by Tar Products Corp., Providence, R. I., Oct. 14, 1930. Claims use since May 5, 1930.

Pack-Rite—This in solid letters describing moth exterminator. Filed by Joseph Triner Co., Chicago,

Oct. 20, 1930. Claims use since June 23, 1930.

Hygeen—This in solid letters describing shampoo. Filed by Voigt Co., St. Louis, Oct. 27, 1930. Claims use since June 11, 1930.

Funjex—This in solid letters describing fungicide, germicide and antiseptic. Filed by Friend-Ullrich, Inc., Fort Smith, Ark., Oct. 29, 1930. Claims use since Sept. 10, 1930.

Jol—This in solid letters with shining sun in background, describing powdered cleaner. Filed by American Progress Co., Atlantic City, N. J., April 23, 1930. Claims use since Dec. 14, 1929.

Master Craftsman—This in tooled letters describing shoe polish and polishing wax. Filed by Jared Holt Co., Albany, N. Y., Sept. 13, 1930. Claims use since Jan. 1, 1930.

Vinc-O-Nol—This in solid letters describing antiseptic and dentrifice. Filed by Westchester Pharmacal Co., Tuckahoe, N. Y., Oct. 23, 1930. Claims use since March 1, 1927.

Trim—This in solid letters describing polish. Filed by Stanco, Inc., Wilmington, Sept. 3, 1930. Claims use since Aug. 1, 1930.

Auka—This in solid letters describing polish. Filed by G. H. Stadelman, Jamaica, N. Y., Oct. 22, 1930. Claims use since May 5, 1930.

Lindahl—This in outline letters on circular mark, describing soaps. Filed by Nauheim Pharmacy, New York, Oct. 15, 1930. Claims use since Sept. 1, 1930.

Trazo-San—This in solid letters describing cleaning compound. Filed by Huntington Laboratories, Huntington, Ind., Oct. 17, 1930. Claims use since May 1, 1930.

Wing—This with two wings describing insecticides. Filed by Apex Products Corp., Chicago, July 21, 1930. Claims use since June 1, 1930.

F. & E. Solution—This in solid letters describing disinfectant. Filed by C. B. Dolge Co., Westport, Conn., Sept. 24, 1930. Claims use since 1912.

Ken-nol—This in solid letters describing insecticides. Filed by Dairy Laboratories, Philadelphia, Nov. 6, 1930. Claims use since Oct. 1, 1930.

Loxalite—This in solid letters describing shampoo. Filed by Hollywood Marvel Products Co., Hollywood, Cal., Nov. 6, 1930. Claims use since Sept. 1, 1930.

Kemapure—This in solid letters describing shampoo. Filed by Arnold Pharmacal Co., New York, March 6, 1929. Claims use since April 15, 1928.

Old Dutch—This in solid letters with letters,

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Hydrogenation, Ellis	15.00
Henley's Twentieth Century Book of Recipes, Formulas and Processes, 800 pages	4.00
The American Soap Maker's Guide, Meerbott and Stanislaus, 750 pages	10.00
Commercial Oils, Vegetable and Animal, Laucks, 138 pages	1.50
Van Nostrand's Chemical Annual, Olsen, 897 pages	5.00
Industrial Filtration, Wright, 336 pages	6.00
Soluble Silicates in Industry, Vail, 443 pages	9.50
The Examination of Hydrocarbon Oils, and of Saponifiable Fats and Waxes, Holde, 572 pages	6.00
Soaps and Proteins: Their Colloid Chemistry in Theory and Practice, Fischer, 272 pages	4.00
The Industrial Chemistry of Fats and Waxes, Hilditch, 450 pages	6.00
Soap Blue Book, A Buyer's Guide, 195 pages	1.00

These books on order

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Soaps, Hurst, 440 pages	7.00
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Chemical Encyclopedia, Kingzett, 810 pages	10.00

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136 LIBERTY STREET

NEW YORK CITY

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"V.D." in diamond, describing insecticides. Filed by F. H. Von Damm, Brooklyn, April 29, 1930. Claims use since May, 1929.

Pre-Silk—This in solid letters describing cleanser. Filed by Sav-Silk, Inc., Medina, N. Y., Oct. 6, 1930. Claims use since Aug. 1, 1929.

Stypstik—This in solid letters with representation of product, describing antiseptic. Filed by Fracy, Inc., New York, Oct. 14, 1930. Claims use since Aug. 15, 1930.

Oil-Tone—This in solid letters describing oil sprays for insecticides. Filed by Lucas Kil-Tone Co., Vineland, N. J., Nov. 4, 1930. Claims use since Sept. 8, 1930.

Pearlpara—This in solid letters with representation of Niagara Falls, describing insecticides, disinfectants and deodorants. Filed by Niagara Alkali Co., Niagara Falls, N. Y., Nov. 13, 1930. Claims use since Oct. 1, 1930.

Perco—This in solid letters describing polish. Filed by Perco-Steril Machine Corp., New York, May 20, 1930. Claims use since Feb. 1, 1930.

Turco—This in solid letters with head of Turk and scimitar, describing cleaning compounds. Filed by Turco Products, Inc., Los Angeles, Sept. 29, 1930. Claims use since Oct. 15, 1927.

Palo—This in solid letters describing cleansing and polishing powder. Filed by Pal Products Co., Brooklyn, Oct. 21, 1930. Claims use since May, 1928.

Bourieo—This in solid letters describing liquid cleaner. Filed by Bourieo Mfg. Co., Reno, Nev., Nov. 3, 1930. Claims use since Oct. 1, 1929.

Sunsap—This in outline letters describing dentrifices. Filed by Sunsap Laboratories, Los Angeles, Feb. 3, 1930. Claims use since May 1, 1909.

Bath-O-Velvet—This in solid letters describing bath salts. Filed by Charles S. Arnold, Inc., Los Angeles, July 28, 1930. Claims use since June 1, 1930.

Orthol-K—This in tooled letters describing insecticides. Filed by California Spray Chemical Co., Berkeley, Cal., Nov. 24, 1930. Claims use since May 31, 1927.

Trade-Marks Granted

277,920. Disinfectant. Farmaide Products Co., Lincoln, Neb. Filed May 22, 1930. Serial No. 301,020. Published Sept. 9, 1930. Class 6.

277,929. Liquid Disinfectant. Odorless Disinfectants, Inc., New York. Filed July 31, 1930. Serial No. 304,062. Published Sept. 23, 1930. Class 6.

278,046. Deodorizer. Apex Products Corp., Chicago. Filed July 7, 1930. Serial No. 303,148. Published Sept. 9, 1930. Class 6.

278,048. Dental Cream. Colgate-Palmolive-Peet

(Turn to Page 119)

New Patents

Conducted by

Lancaster, Allwine & Rommel

Registered Attorneys

PATENT AND TRADE-MARK CAUSES
402 Ouray Building, Washington, D. C.

Complete copies of any patents or trade-mark registrations reported below may be obtained by sending 25c for each copy desired to Lancaster, Allwine and Rommel. Any inquiries relating to Patent or Trade-mark Law will also be freely answered by these attorneys.

No. 1,780,330, Soap cake and art of making same, Patented November 4, 1930, by Robert S. Blair, of Stamford, Connecticut. A soap cake having an outer solid shell of soap and an inner non-solid soap filling of hard structure and extending throughout the interior of the shell in sponge-like form and of such size as largely to increase the size of the cake.

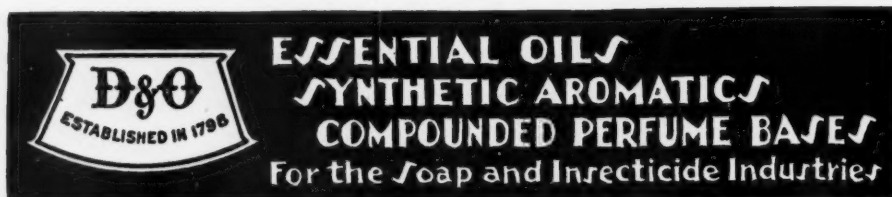
No. 1,781,841, Insecticide and method of production, Patented November 18, 1930, by Albert Hartzell, of Yonkers, New York, assignor to Boyce-Thompson Institute for Plant Research, Inc., Yonkers, New York, a Corporation of New York. An insecticide consisting essentially of minute particles of colloidal sublimed sulphur in an emulsion of fish oil soap and water.

No. 1,782,805, Cleaning powder, Patented November 25, 1930, by Frank C. Broeman, of Cincinnati, Ohio, assignor to Arthur Silbersack, Cincinnati, Ohio. A composition containing a mixture of ingredients substantially as follows: 15% finely divided particles of wood such as sawdust or wood flour, 2% bleaching powder, such as chlorinated lime, 20% potassium chloride and 63% sodium acid sulphate.

No. 1,782,859, Auxiliary soap cake cover, Patented November 25, 1930, by James A. Perego, of Elizabeth, Louisiana. In combination with a cake of soap, a covering of cloth shaped to snugly receive the cake and having the same exterior shape as the cake, and resilient contractile bands connected with the interior of the covering and passing around the cake for holding the covering in close contact with the cake after the cake has been reduced in size.

—O—

A cable from assistant commercial attache at Rome, dated December 10, gives the second estimate of Italian olive oil production as 1,800,000 hectoliters (356,629,500 pounds) or less than half of last year's production.



The present low prices should offer
good opportunity for investment

OIL BERGAMOT
OIL BOIS DE ROSE BRAZILIAN
OIL CAMPHOR SASSAFRASSY, our own production
OIL CEDARWOOD
OIL CITRONELLA CEYLON
OIL GERANIUM ALGERIAN
OIL GERANIUM BOURBON
OIL LAVENDER U S P
OIL LAVENDER HIGH TEST
OIL NUTMEG, our own distillation
OIL PATCHOULY, our own distillation
OIL PETITGRAIN, South American U S P
OIL ROSEMARY, Spanish
OIL SANDAL EAST INDIAN, our own distillation
OIL SASSAFRAS ARTIFICIAL, our own production
OIL SPIKE LAVENDER, Spanish



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180 VARICK STREET

NEW YORK CITY

*"The integrity of the house is reflected in the
quality of its products"*

Say you saw it in SOAP!

Market Report on ESSENTIAL OILS AND AROMATICS

(As of January 8, 1931)

NEW YORK—Prices in the essential oil market continued to plunge downward during the recent period, continuing the drop which has brought them to the lowest levels seen since well before the World War. With prices as they are now, even below production costs on a number of items, it is difficult to see how they can go much lower. If buying interest does not soon put an end to the decline, the refusal of producers to continue to manufacture goods to sell at a loss is sure to appear as a force in the market. Under normal economic conditions when prices go too low they are automatically brought back up by a reduction in supplies resulting from unattractive profits.

ANISE OIL

Anise prices are now down to a basis of 70c. a pound, as deliveries are coming through without delay. The prospect is for further decline as stocks for nearby arrival are lower in cost.

BERGAMOT OIL

Reports from Italy that the government had finally been granted specific privileges in the con-

trol of the bergamot industry caused a fair amount of strength in this oil, although no price advances could be confirmed. It is not known as yet just what powers have been granted for the control of the industry.

OIL GERANIUM

No change was noted in quotations on either the Bourbon or African oil during the period, the market being nominal with only a small amount of trading.

OIL LAVENDER

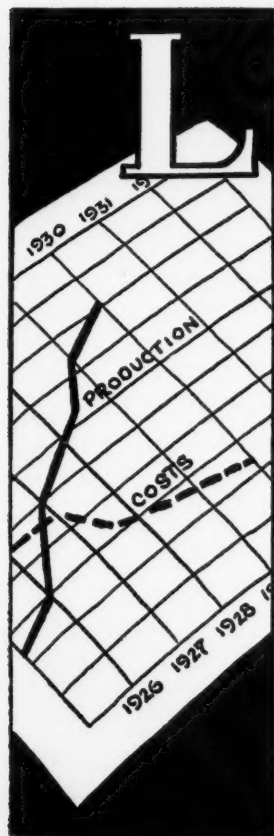
This market was in an easy position due to the satisfactory crop of the past season. In a number of quarters reductions were made, bringing inside prices down somewhat.

OIL PATCHOULI

Lack of demand has resulted in further shading on oil patchouli which is now quoted at an inside price of \$4.75 a pound.

OIL PEPPERMINT

Demand for this product is extremely light despite the remarkably low prices now prevailing.



ET QUARTZ QUALITY SILICATE OF SODA ASSIST YOUR PROGRESS

THE soap industry progresses. Through research it is ever discovering new things and facts. Our Technical Division is alert to such developments and their advice is yours, without obligation.

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FABRIK**

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Oil of BERGAMOT VILARDI

A manufacturer buying this brand is assured of securing an oil from the most important and reliable source of supply. It assures the user of obtaining absolutely satisfactory results.

Ask for a sample and be convinced that the

OIL OF BERGAMOT

supplied by the

**HOUSE
of
VILARDI**

is the kind you should use.

Sole U. S. Agent

P. R. DREYER Inc.
26 CLIFF STREET, NEW YORK

Say you saw it in SOAP!

The trade has not seen lower quotations on peppermint in recent years.

—o—
P. R. Dreyer, accompanied by Mrs. Dreyer, sailed January 7 on the *Reliance* for an extended trip to the West Indies. Mr. Dreyer is president of P. R. Dreyer Inc., New York, dealers in essential oils and aromatic chemicals. Mr. Dreyer will combine business with pleasure, visiting his principals and many friends.

—o—
Sales Agents—Agents and jobbers wanted by soap manufacturer of high standing in various parts of country. To handle full line of soaps, soap bases, shampoos, liquid soaps, laundry soaps, etc. Finest grade. One hundred percent co-operation to representatives. Address Box 628, care *Soap*.

—o—
The wholesale price list of Pierre Lemoine, Inc., New York, for the fourth quarter of 1930, has recently been issued, listing quotations for essential oils and natural and synthetic flower products.

Raw Material Markets

(From Page 23)

rosemary, and terpineol and methyl salicylate. Based on a January, 1926, rating of 100, the general average of essential oil prices stood at 92 in January, 1930, four points above the five-year general average of 88. During the past year the index reading has dropped each three months period, falling to 79 on January 1, 1931, a drop

of approximately 14%. This figure is 9 points or 10% below the five-year general average.

Oil bergamot has been one of the most active of the essential oils during the last year. Opening the year at the relatively low price of \$3.00 a pound, it has continued to decline all through the period, due principally to the release of a large quantity of oil on a weak market by an Italian combine which had accumulated it over a period when prices were considerably higher. At the low point of the drop which came several months ago, it touched \$2.50 a pound, causing the Italian government considerable concern. The Government has now been given authority to exert control over the industry, and a stronger position is anticipated for bergamot shortly. Another active oil, anise, has registered a decline from \$1.00 to 60c. a pound during the recent year. At the opening there was an acute shortage and internal difficulties in China made it impossible to secure stocks. With the partial adjustment of this condition during the past few months, the stock shortage has been straightened out and prices are now back at normal. The weakness in Chinese exchange has accelerated the deflation. Lavender oil has also been very cheap during the year, with producers willing to quote reduced prices because of the outlook for a good 1930 production.

ESSENTIAL OILS AROMATIC CHEMICALS

Prime Raw Materials for Soapmaking

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Phenylethyl Alcohol

Phenylacetic Aldehyde

Iso Eugenol

Flosal

(The original Amyl Cinnamic Aldehyde)

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**Caustic
Soda**

Solid - Flake
Ground - Liquid



**Soda
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Light - Dense

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Quality -- Service

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CINCINNATI, OHIO

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NEW YORK

Say you saw it in SOAP!

Market Report on SOAP AND DISINFECTANT CHEMICALS

(As of January 7, 1931)

NEW YORK—The feature of the market for soap and disinfectant chemicals during the recent period was the unusual activity in alkalis' prices. It had been known for some time that spot business in caustic soda and soda ash was being taken at figures well under the official schedules, and during the past month producers found it necessary to make concessions on 1931 contracts. The situation became sufficiently disorganized at one point that producers withdrew quotations in an attempt to stabilize the market. Little change was noted in glycerine, the market remaining quiet. Naval stores again exhibited a mixed movement, darker grades of rosin declining while the pale varieties moved slightly upward. Producers look for a distinct upward trend this year, as it is expected that the rosin and pine oil will be considerably curtailed.

ALKALIS

With producers anxious to secure outlets for their excess alkali production in spite of decreased demand from consumers, the price of alkalis for

1931 delivery declined sharply during the recent period. Caustic soda was generally offered on 1931 contract at \$2.45 per cwt. Soda ash was also down in price, being quoted at 92c. per cwt., as against the previous schedule quotation of \$1.32. In an attempt to stabilize conditions producers withdrew their quotations toward the close of the period, which was reported to have had a strengthening effect on the market.

GLYCERINE

The price of C. P. glycerine was shaded $\frac{1}{2}$ c. a pound during the period, dropping to $12\frac{1}{2}$ c. inside, at the close, but with this exception there was no price activity in this market. Demand was reported light, with suppliers not anxious to push matters in the face of the generally weak situation.

NAVAL STORES

The cheaper grades of rosin continued to go lower in price during the recent period, and the light grades again made slight gains. Shipments increased and were expected to pick up even more after the start of buying for the new year. The

Continuous Hydrogenation

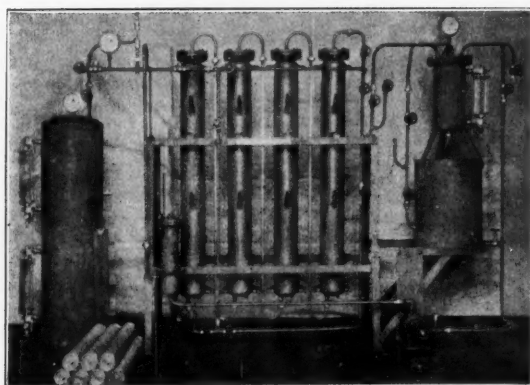


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Positive simple
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USERS OF CHEMICALS OBTAIN A HIGHER STANDARD OF SERVICE WHEN THEY BUY HOOKER CHEMICALS. RECOGNIZED QUALITY COMBINES WITH AN UNEXCELLED TECHNICAL SERVICE AND PROMPT DELIVERIES TO PROVIDE OPERATING ECONOMIES IN THE PLANT THAT CAN ACTUALLY BE MEASURED IN DOLLARS AND CENTS.

OUR TECHNICAL AND RESEARCH STAFF, BACKED BY OVER 25 YEARS OF EXPERIENCE, IS READY TO HELP YOU IN MOST ECONOMICALLY APPLYING HOOKER CHEMICALS TO YOUR INDIVIDUAL REQUIREMENTS.

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BLEACHING POWDER
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BENZOATE OF SODA
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Plant—Tacoma, Washington
Sales Office: Tacoma, Washington

HOOKER CHEMICALS

Say you saw it in SOAP!

price curve seems to have passed the low point of its drop, and many buyers are reported to be laying in stocks before any substantial rise gets under way. Producers are inclined to be optimistic as to the future, since they anticipate a much smaller production this year. The recent lean years, they believe, will cause abandonment of activity by many marginal producers.

PYRETHRUM

Quotations on pyrethrum did not change appreciably during the recent period, remaining at 22c. to 25c. a pound for best quality powder and granulated. In a number of quarters, business was reported to have picked up rapidly after the first of the year. Apparently stocks were allowed to run low to cut down inventory difficulties, and now replacements are being made.

Chemical Compounding Corp., Brooklyn, N. Y., is issuing a series of letters to the trade covering the raw materials, manufacture, specifications and characteristics of various disinfectants, animal dips, insecticides and allied products which they manufacture. Their letter on Cresol Compounds, U. S. P. and Technical, was especially interesting. Copies may be secured by interested firms by communicating with the company offices at 262 Huron St., Brooklyn, N. Y.

Exports of soda ash from United States during October, 1930, totaled 5,025,258 lbs., worth \$77,017, with Mexico, the largest buyer, taking 1,575,755 lbs. for \$22,901.

Soap Plant in Iraq

The Iraq Soap Factory was organized by a local firm at Bagdad assisted by German experts, and has been operating since July. The machinery was imported from Germany. The administrative staff consists of a German manager with an assistant of the same nationality, as well as a German works superintendent with two native assistants. The total force employed is believed to be seventy-five men. The capital is reported to be about \$36,500 of which \$20,075 represents the cost of the machinery. The proprietors claim to be using local mutton and cattle fats and sesame oil. The monthly production is estimated to be 5,000 cases. A recent advertisement states the factory produced 1,500 cases in July, 2,200 cases in August and 2,000 cases in September. The local soap is competing with Syrian soap imported from Damascus and Tripoli, and also with that brought in from Marseilles. It is not anticipated that the opening of the local plant will materially affect the sale of American soap. (Report from Consul Sloan at Bagdad, Iraq, to Foodstuffs Division, Department of Commerce.)

H. L. Derby, president of Kalbfleisch Corp., a subsidiary of American Cyanamid Co., has been elected a vice-president of the latter company.



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QUALITY MARK
on a barrel or bag of
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PHOSPHATE**

The Grasselli Chemical Co.

Incorporated

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IS a guarantee of purity and uniformity, backed by a chemical reputation of nearly a hundred years.

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Shipped to you in barrels with paper liner—no loss either in transit or storage. Also comes in kegs and bags. Grades—fine, globular, medium and coarse.

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A recent survey of a dozen progressive plants revealed that in 1930 four were 28% ahead of 1929. Eight averaged 18% ahead. Business is good for those who make it so by seeking, seizing and applying new ideas for

improving efficiency in every department—

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by utilizing every modern aid to cut production and selling costs. Marked improvement can be made in every soap plant by a careful, close-up study of all that is new and most modern in process development machinery, methods and equipment. A visit to the Chemical Industries Exposition, Grand Central Palace, New York, during the week of May 4th will be a profitable investment for you and your firm.

THIRTEENTH EXPOSITION CHEMICAL INDUSTRIES

Management International Exposition Company

Say you saw it in SOAP!

Market Report on TALLOW, GREASES AND OILS

(As of January 8, 1931)

NEW YORK—Early advices from the Antarctic, reporting a whaling catch up to December 1 approximately 50% larger than the figure for the same period of last season, gave a weak undertone to the oil and fat markets in the period just concluded. If nothing happens to prevent this year's whale oil production from again going to record limits, serious effects are forecast for the animal and vegetable oil markets. The price movement continued downward during the past month, with about half the list of oils registering declines. Copra fell off to a new low; coconut oil also weakened again. Other oils to decline included cottonseed, linseed, peanut, palm and palm kernel. Tallow and the greases were quoted lower, although sellers were not pushing matters at the extremely low quotations which now prevail on these products.

COCONUT OIL

Pacific coast tanks of Manila oil fell off to an inside price of 4¾c. lb. at the close of the recent period, the weakness being largely due to lower

prices on competing oils. Copra hit a low point of 2¾c. lb. The London market was slightly firmer at one time, but this was regarded as merely a technical adjustment among dealers.

CORN OIL

Corn oil was one of the few products to exhibit a firm appearance during the recent period. Prices showed no change, and stocks are reported to be light. Mill tanks were quoted at an inside price of 7 cents.

PALM OIL

This market was quiet as is usual at this season of the year, and quotations declined as a result.

TALLOW

Quotations on tallow held fairly steady during the month, sellers being reluctant to make further reductions. The low price of 4½c. lb. for city extra tallow is a record for recent years.

WHALE OIL

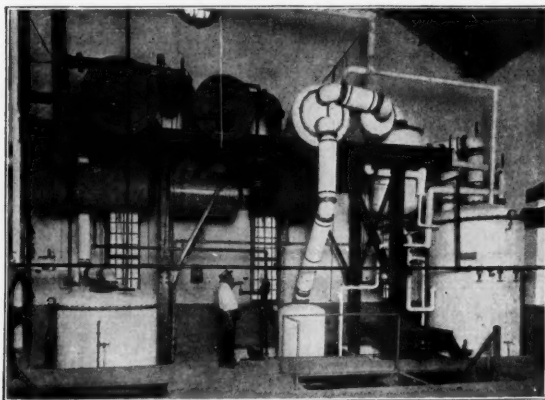
A U. S. Department of Commerce report from



GLYCERINE REFINING PLANTS

The most efficient Glycerine Refining Plant operating with the lowest refining loss and the highest yield of finished product.

The outstanding features of the WURSTER & SANGER process and equipment are:



WURSTER & SANGER GLYCERINE DISTILLATION PLANT

1. Highest yield of distilled glycerine.
2. Highest percentage of finished glycerine obtained on direct distillation, eliminating rehandling and losses.
3. Lowest steam consumption.
4. Extreme simplicity of operation.
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New Plants Designed—

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Complete Plants for

Crude, Dynamite and C. P. Glycerine
Laundry, Toilet and Liquid Soaps
Spray-Process Soap Powder
Fatty Acid Distillation
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LANUM

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(Lanolin Anhydrous)

LANUM ANHYDROUS is Merck's special grade of wool-fat highly refined for soap and cosmetic manufacturers.

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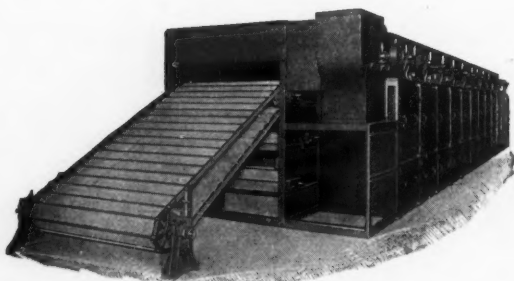
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Montreal

On Drying Soap ↗



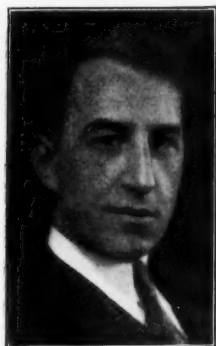
NEXT to quality comes low price quantity production in drying chip soap. Both quality and quantity results are obtained by the use of the Sargent Three Swing Shelf Conveyor progressive stage Chip

Soap Drying Machines. These machines may be had with or without Chilling Rolls.

C. G. SARGENT'S SONS CORP.
GRANITEVILLE MASSACHUSETTS

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Oslo indicates a production of whale oil up to December 1, 1930, of approximately 1,000,000 barrels, as compared with 680,000 barrels produced up to the same date in the previous season. This early report forecasts another increase this year in the production of whale oil which last year reached a new record.



Frederick A. Koch, assistant manager of the Eastern office of the Dow Chemical Co. at New York, was elected president of the Salesmen's Association of the American Chemical Industry for 1931. He was formerly vice-president of the Association and has been active in its affairs for some years past.

The 1930 crop of Japanese pyrethrum amounting to about 14,700,000 pounds, fell short of the estimate by 10 or 15 percent. The 1931 crop will be slightly larger, in the opinion of local exporters. The quality of the flowers in the 1930 crop was excellent. Total exports of pyrethrum flowers from Kobe, Japan, during the first nine months of 1930 amounted to 5,157,000 pounds, valued at \$889,000, as compared with 5,331,000 pounds, valued at \$1,153,000 during the same period of 1929.

Hinde & Dauch Paper Co., Sandusky, Ohio, recently announced the acquisition of Buffalo Box Co. of Buffalo, New York. The acquisition brings the number of H. & D. plants up to twenty-five, increases the capacity of the company by 12,000 tons of finished products yearly and makes possible economies in the consolidation of the Buffalo H. & D. sales office with that of the Buffalo Box Co.

At a vote taken at the general convention of McCormick & Co., Inc., Baltimore, Maryland, voicing the opinion of one hundred and fifty salesmen from all sections of the country, the general consensus of opinion proved that these men believe that business conditions will steadily rise during 1931 on a stronger, more stable basis than ever before.

Where excessive lather in soap or other cleaning solution is undesirable, Glyco Products Co., Brooklyn, recommends the use of "No-Foam," to cut down this tendency. This product increases surface tension and thus tends to minimize frothing.

On December 24, 1930, 521,220 shares of common stock of Newport Chemical Co., Passaic, N. J., were admitted to listing on the New York Stock Exchange.



*Save money on your
soft soaps!*

Make them with

CORN OIL FATTY ACID

It will pay you to investigate the savings possible in making your soft soaps from Corn Oil Fatty Acid instead of from Corn Oil itself. We can quote fatty acids from Chicago at unusually attractive prices. Manufacturers turning out darker grades of soft soap should be especially interested in communicating with us at once.

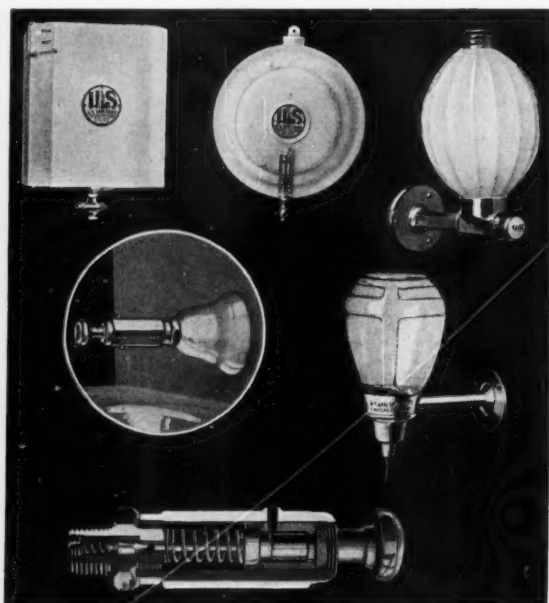
ACME OIL CORP.
4650 Iowa St., Chicago

When you need

No. 2 Corn Oil	Cold Pressed Menhaden
Corn Oil Fatty Acid	Fish Oil
Peanut Oil Fatty Acid	Cold Pressed Sardine Oil
Linseed Oil Fatty Acid	Crude California Sardine
Cottonseed Fatty Acid	Oil
Super Cochin Coconut	Recovered Lard Oil
Oil	Boiled Down Cottonseed
Ceylon Coconut Oil	Soap
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Semi Refined Domestic	Acid
Soya Bean	Napthanic Acid
Crude Domestic Soya	Gum Goulac
Bean	Wool Grease

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FOOL-PROOF EQUIPMENT
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Profits and repeat orders in selling SOAPERIOR LIQUID SOAP EQUIPMENT . . . Gravity Feed Type adequate for all requirements, consisting of exposed fool-proof Hexagon Valves (cross-section shown) and handsome tanks (several types illustrated) installed at elevation and serving any number of basins.

Also four types of popular fast-selling Individual Dispensers (two illustrated) . . . models built for heavy duty . . . others priced so low you can give them away to your trade with soap orders.

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[NEW! ALRITE Gravity Liquid Soap Valve
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Carbon Tetrachloride

in your liquid cleaners

STAUFFER BRAND Carbon Tetrachloride will make a good cleaner better. It is 99.9% pure, the purest obtainable anywhere, is water white and is absolutely free from residue or

residual odor. May we work with you when you are next in the market? Let us submit samples and prices. Anything from a drum up.

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CAUSTIC SODA

STAUFFER CHEMICAL COMPANY

Plants
Niagara Falls, N. Y.
Los Angeles, Cal.

Office
420 Lexington Ave.
New York City

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CURRENT PRICE QUOTATIONS

Chemicals

Acetone, C. P., drums.....lb.	.11½	.14
Acid, Boric, bbls., 99½%.....ton	135.00	162.50
Cresylic, 97%, dk., drums.....gal.	.55	.60
97-99%, pale, drums.....gal.	.60	.70
Formic, 90%, tech.....lb.	.10½	.12
Oxalic, bbls.....lb.	.11	.11½
Salicylic, tech.....lb.	.33	.33
Adeps Lanae, hydrous, bbls.....lb.	.14	.15
Anhydrous, bbls.....lb.	.15	.16
Alcohol, Ethyl, U. S. P., bbls....gal.	2.63	2.74
Complete Denat., No. 5, drums, ex.gal.	.39	.41
Alum. potash lump.....lb.	.03½	.03½
Ammonia Water, 26°, drums, wks..lb.	.03	.03½
Ammonium Carbonate, tech., bbls..lb.	.10½	.11½
Bay Rum, imported, bbls.....gal.	.70	.75
Bleaching Powder, drums.....100 lb.	2.00	2.60
Borax, pd., cryst., bbls., kegs.....ton	66.00	77.50
Carbon Tetrachloride, car lots.....lb.	.06¼	—
L. C. L.....lb.	.06¼	.07
Caustic, see Soda Caustic, Potash Caustic		
China Clay, filler.....ton	10.00	25.00
Cresol, U. S. P., drums.....lb.	.14	.19
Creosote Oil, tanks.....gal.	.13	.16
Formaldehyde, bbls.....lb.	.07¼	.07¼
Fullers Earth.....ton	15.00	24.00
Glycerine, C. P., drums.....lb.	.12½	.13
Dynamite, drums.....lb.	.11	.11½
Saponification, tanks.....lb.	.09	.09½
Soaps, Lye, tanks.....lb.	.06¼	.07

Hexalin, drums.....lb.	—	.60
Kieselguhr, bags.....ton	—	35.00
Lanolin, see Adeps Lanae.		
Lime, live, bbls.....per bbl.	1.70	2.20
Menthol, cases.....lb.	4.00	4.15
Synthetic, tins.....lb.	3.00	3.65
Mercury Bichloride, kegs.....lb.	1.65	1.80
Naphthalene, ref. flakes, bbls.....lb.	.04½	.05½
Nitrobenzene (Myrbane) drums.....lb.	.09½	.11
Paradichlorobenzene, bbls., kegs.....lb.	.17	.25
Paraformaldehyde, kegs.....lb.	.38	.39
Petrolatum, bbls. (as to color).....lb.	.02%	.08%
Phenol—(Carbolic Acid), drums.....lb.	.14¼	.16
Pine Oil, bbls.....gal.	.55	.61
Potash, Caustic, drums.....lb.	.06¼	.06¼
Flake.....lb.	.07	.08
Potassium Bichromate, casks.....lb.	.08%	.09½
Pumice Stone, powd.....100 lb.	2.50	4.00
Rosins (600 lb. bbls. gross for net)—		
Grade B to H, basis 280 lbs.....bbl.	4.65	5.50
Grade K to N.....bbl.	5.75	6.35
Grade WG and WW.....bbl.	7.85	8.55
Wood, works.....bbls.	3.75	3.80
Rotten Stone, pwd. bbls.....lb.	.02½	.04½
Silica, Ref., floated.....ton	18.00	22.00
Soap, Mottled 40 lb. box.....lb.	.15	—
Powdered White, U. S. P.....lb.	.26	.27
Green, U. S. P.....lb.	.07¼	.07½
Whale Oil, bbls.....lb.	.04	.05¼
Soda Ash, Contract, wks., bags, bbls.		
100 lb.....lb.	—	.92½
Five bbls., up, local.....100 lb.	—	—

basic raw materials for CLEANERS

for dry Cleansers--

TRISODIUM PHOSPHATE

Fine granular and Powdered
Free flowing and non-caking



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CARBON TETRACHLORIDE

Redistilled — Water White — Supplied also in
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T S P



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Our thorough-going production in a modern plant; and our control of the product right from raw material onward assures Aero Brand T-S-P retaining its excellent mechanical condition and otherwise meeting the most exacting requirements. We ship promptly by rail, water or truck from our plant at Warners, N. J., on New York Harbor.



Industrial Chemicals Division

American Cyanamid Company
535 Fifth Avenue New York

Say you saw it in SOAP!

Soda Caustic, Cont., wks., sld....100 lb.	—	2.45
Five drums up, solid, local....100 lb.	—	—
Five drums up, grnd. flk....100 lb.	—	—
Soda Sal., bbls.....100 lb.	1.00	1.15
Sodium Bifluoride .....lb.	.17½	.19
Sodium Chloride (Salt) .....ton	11.40	14.00
Sodium Fluoride, bbls.....lb.	.08¼	.09½
Sodium Hydrosulphite, bbls.....lb.	.23	.27
Sodium Silicate, 40 deg., drum.100 lb.	.75	.80
Drums, 60 deg. wks. ....100 lb.	—	1.65
In tanks, 15c less per hundred, wks.		
Tar Acid Oils, 15-25%.....gal.	.24	.28
Trisodium phosphate, bbls.....lb.	.03½	.03¾
Zinc Oxide, lead free .....lb.	.06½	.07
Zinc Stearate, bbls.....lb.	.22	.24

Oils—Fats—Greases

Castor, No. 1, bbls.....lb.	.11¼	.12
No. 3, bbls.....lb.	.11¼	.11½
Coconut, tanks, N. Y.....lb.	.05¼	.05½
Tanks, Pacific Coast .....lb.	.04¾	.04%
Fatty acids, mill, drums .....lb.	.06	Nom.
Cod, Newfoundland, bbls.....gal.	.44	.46
Copra, bulk, Coast .....lb.	.0275	.0280
Corn, tanks, mills .....lb.	.07	.07¼
Bbls., N. Y.....lb.	.09	Nom.
Fatty acid .....lb.	.05½	Nom.
Cottonseed, crude, tanks, mill.....lb.	.05½	.06
PSY .....lb.	—	.07¼
Fatty Acids, mill, bbls.....lb.	.05¼	Nom.
Degras, Amer., bbls.....lb.	.03¾	.04½
English, bbls.....lb.	.05	.05¼
German, bbls.....lb.	.04½	.04¾
Neutral, bbls.....lb.	.07	.09
Greases, choice white, bbls., N. Y...lb.	.04¼	.06
Yellow .....lb.	.03¾	.03%
Brown .....lb.	.03%	.03%
House .....lb.	.03¾	.03%
Lard, prime, steam, tierces.....lb.	.08¾	.09
Compound, tierces .....lb.	.10	.10¼

Lard Oil, edible prime .....lb.	—	.13¾
Extra, bbls.....lb.	—	.09½
Extra, No. 1, bbls.....lb.	—	.09
No. 2, bbls.....lb.	—	.08½
Linseed, raw, bbls., spot.....lb.	.0860	.0900
Tanks, raw .....lb.	—	.0800
Boiled, 5 bbls. lots .....lb.	—	.0980
Menhaden, Crude, tanks, Balt.....gal.	.20	Nom.
Oleo Oil, No. 1, bbls., N. Y.....lb.	—	.08¾
No. 2, bbls., N. Y.....lb.	—	.08¾
Olive, denatured, bbls., N. Y.....gal.	.82	.85
Foots, bbls., N. Y.....lb.	.06¼	.06¾
Palm, Lagos, casks, spot.....lb.	.05½	.05¾
Shipments .....lb.	—	.05¼
Niger casks, spot .....lb.	.05	.05¼
Shipments .....lb.	—	.04¾
Palm Kernel, pkgs., denatured ....lb.	.05¾	.06
Tank cars, denatured .....lb.	.05	.05¼
Peanut, refined, bbls., N. Y.....lb.	.11	.12
Crude, bbls., N. Y.....lb.	.07	.07½
Red Oil, distilled, bbls.....lb.	.08½	.09¾
Saponified, bbls.....lb.	.08½	.09¾
Tanks .....lb.	—	.07¾
Soya Bean, crude, tks., Pac. Coast..lb.	.08	Nom.
Crude, bbls., N. Y.....lb.	.10	.10¼
Refined, bbls., N. Y.....lb.	.10¾	.11
Stearic Acid		
Double pressed .....lb.	.10	.10½
Triple pressed, bgs.....lb.	.12½	.13
Stearine, oleo, bbls.....lb.	.08¼	.08¾
Tallow, special, f. o. b. plant.....lb.	.04¼	.04¾
City, ex. loose, f. o. b. plant.....lb.	.04½	.04¾
Tallow, oils, acidless, tanks, N. Y...lb.	—	.07¾
Bbls., c/1, N. Y.....lb.	—	.08¼
Whale, nat. winter, bbls., N. Y....gal.	.72	.74
Blchd., winter, bbls., N. Y.....gal.	.75	.77
Extra blchd., bbls., N. Y.....gal.	.78	.80

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(Finest Quality)

Produced by

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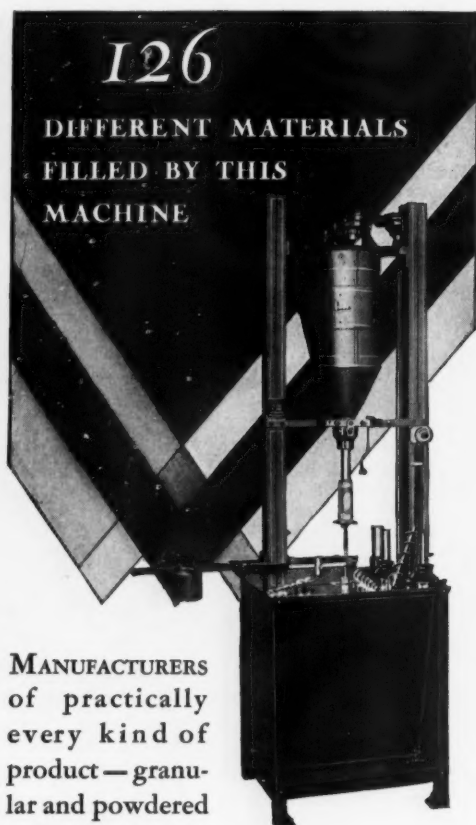
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126
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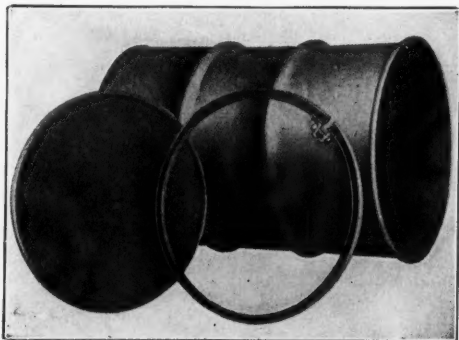
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Essential Oils

Almond, Bitter, U. S. P.....lb.	2.50	2.75	Hemlock, tins	lb.	.90	.95
Bitter, F. F. P. A.....lb.	2.90	3.30	Lavender, U. S. P., tins	lb.	2.00	2.75
Sweet, cans .....	.48	.50	Spike, Spanish, cans	lb.	.80	.90
Apricot, Kernel, cans .....	.29	.30	Lemon, Ital., U. S. P.	lb.	1.00	1.25
Anise, cans	—	—	Lemongrass, native, cans	lb.	.64	.65
U. S. P., cans .....	.70	.72	Linaloe, Mex., cases	lb.	2.15	2.30
Bay, tins	2.10	2.25	Neroli, Artificial	lb.	10.00	20.00
Bergamot, coppers	2.30	2.60	Nutmeg, U. S. P., tins	lb.	1.25	1.35
Artificial	2.00	2.25	Orange, Sweet, W. Ind., tins.....	lb.	2.30	2.40
Birch Tar, rect., bot. ....	.45	.50	Italian, cop.	lb.	2.30	2.70
Crude, tins .....	.13	.14	Distilled	lb.	1.10	1.20
Bois de Rose, Brazilian .....	.83	.86	Origanum, cans, tech.	lb.	.25	.40
Cayenne	1.50	1.60	Patchouli	lb.	4.75	6.50
Cade, cans .....	.26	.27	Pennyroyal, dom.	lb.	1.55	1.60
Cajuput, native, tins .....	.70	.80	Imported	lb.	1.10	1.15
Calamus, bot.	2.75	3.00	Peppermint, nat., cases	lb.	2.05	2.10
Camphor, Sassy, drums .....	.22	.24	Redis., U. S. P., cases	lb.	2.25	2.35
White, drums .....	.17	.19	Petit Grain, S. A., tins	lb.	1.20	1.30
Cananga, native, tins	2.40	2.65	Pine Needle, Siberian	lb.	.65	.70
Rectified, tins	2.60	2.80	Rose, Natural	oz.	14.00	21.00
Caraway Seed	1.60	1.70	Artificial	oz.	2.00	2.75
Cassia, Redistilled, U. S. P., cans...	1.10	1.20	Rosemary, U. S. P., drums	lb.	.40	.45
Cedar Leaf, tins .....	.90	.95	Tech., lb. tins	lb.	.30	.35
Cedar Wood, light, drums .....	.40	.42	Sandalwood, E. Ind., U. S. P.	lb.	8.25	8.50
Citronella, Java, drums .....	.54	.56	Australian	lb.	5.65	—
Citronella, Ceylon, drums .....	.43	.47	Sassafras, U. S. P.	lb.	.90	1.10
Cloves, U. S. P., cans	1.75	1.80	Artificial	lb.	.29	.32
Eucalyptus, Austl., U. S. P., cans...	.39	.40	Spearment, U. S. P.	lb.	2.50	2.60
Fennel, U. S. P., tins.....	.95	1.20	Thyme, red. U. S. P.	lb.	.70	.80
Geranium, African, cans	4.00	4.25	White, U. S. P.	lb.	.85	.90
Bourbon, tins	4.25	4.50	Tech.	lb.	.60	.70
			Vetivert, Bourbon	lb.	5.60	5.80
			Java	lb.	16.00	20.00
			Ylang Ylang, Bourbon	lb.	5.25	6.50

*A new type***REMOVABLE DRUM HEAD***at an extremely low price!*

A sturdy low cost one-time open head drum in 15, 30 and 55 gal. sizes of particular interest to shippers of soft soaps, disinfectants, glycerin, insecticides, etc. Send for complete details and prices.

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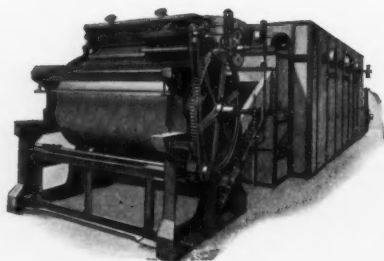
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This new Proctor Dryer produces Soap Chips of transparent thinness—exactly the kind now in popular demand for package laundry soap—also the chip that can be produced most efficiently in making cake toilet soap.

New throughout—new chilling rolls—new dryer, this machine not only produces the most satisfactory soap chip, but it excels in high capacity, saving of floor space, reduced steam consumption, low cost of operation. Write.

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Aromatic Chemicals

Acetophenone, C. P.lb.	2.25	2.50
Amyl Cinnamic Aldehydelb.	4.00	8.00
Anethol ....lb.	1.90	2.10
Benzaldehyde, tech. ....lb.	.60	.65
F. F. C. ....lb.	1.25	1.35
Benzyl, Acetate ....lb.	.75	.90
Alcohol ....lb.	1.10	1.20
Citral ....lb.	2.50	3.00
Citronellal ....lb.	1.30	1.90
Citronellol ....lb.	3.00	5.00
Citronellyl Acetate ....lb.	13.00	14.00
Coumarin ....lb.	3.50	4.00
Diphenyl oxide ....lb.	1.15	1.25
Eucalyptol, U. S. P. ....lb.	.85	.95
Eugenol, U. S. P. ....lb.	3.50	3.75
Geraniol, Domestic ....lb.	2.40	2.75
Imported ....lb.	3.00	3.25
Geranyl Acetate ....lb.	2.75	3.50
Heliotropin, dom. ....lb.	1.90	2.00
Imported ....lb.	2.25	2.50
Hydroxycitronellal ....lb.	5.50	6.00
Indol, C. P. ....oz.	6.00	6.50
Ionone ....lb.	5.00	10.00
Iso-Eugenol ....lb.	4.50	5.00
Linalool ....lb.	3.00	4.00
Linalyl Acetate ....lb.	3.75	5.00
Menthol ....lb.	3.75	4.00
Methyl Acetophenone ....lb.	2.30	2.60
Anthranilate ....lb.	2.40	2.60
Paracresol ....lb.	8.00	9.00
Salicylate, U. S. P. ....lb.	.40	.43
Musk Ambrette ....lb.	—	6.35
Ketone ....lb.	—	7.00
Xylene ....lb.	2.35	2.50

Phenylacetaldehyde ....lb.	7.00	8.00
Phenylacetic Acid, 1 lb. bot. ....lb.	3.00	4.00
Phenylethyl Alcohol, 1 lb. bot. ....lb.	4.25	4.50
Rhodinol ....lb.	9.00	18.00
Safrol ....lb.	.33	.35
Terpineol, C. P., 1,000 lb. drs. ....lb.	.30	.32
Cans ....lb.	.32	.33
Terpinyl Acetate, 25 lb. cans ....lb.	.80	1.15
Thymol, U. S. P. ....lb.	2.10	2.20
Vanillin, U. S. P. ....lb.	5.00	7.00
Yara Yara ....lb.	1.20	1.50

Miscellaneous

Insect Powder, bbls. ....lb.	.22	.25
Concentrated Extract ....lb.	2.00	2.10
Gums—		
Arabic, Amb. Sts. ....lb.	.12	.13
White, powdered ....lb.	.21	.25
Karaya ....lb.	.12	.26
Tragacanth, Aleppo, No. 1 ....lb.	1.28	1.40
Sorts ....lb.	.40	.45
Turkish, No. 1 ....lb.	.90	.95
Waxes—		
Bayberry, bgs. ....lb.	.22	.24
Bees, white ....lb.	.48	.52
African, bgs. ....lb.	.25	.26
Refined, yel. ....lb.	.34	.36
Candelilla, bgs. ....lb.	.16	.17
Carnauba, No. 1 ....lb.	.26	.27
No. 2, Yel.lb.	.24	.25
No. 3, Chalkylb.	.16	.17
Japan, caseslb.	.12	.13
Paraffin, ref. 125-130lb.	.04½	.05%

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Low Cost Odors for Soaps, Fly Sprays,
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White Crystals with Fine Natural Odor for
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FLORIDA
THIS YEAR +**



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SARASOTA
TERRACE
SARASOTA, FLA.**

SITUATED on a main highway away from the confusion of the city, the Sarasota Terrace is fire-proof, thoroughly modern and perfectly appointed.

One of the FLORIDA-COLLIER COAST HOTELS

Under HAL THOMPSON Management

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Hotel Tampa Terrace, Tampa	

HOSTS OF THE FLORIDA COASTS

**+ GO TO +
FLORIDA
THIS YEAR +**

Say you saw it in SOAP!

Lavender

(From Page 31)

to obtain oils richer in ethers; but that installation being expensive, many landowners not in a position to establish factories changed their original apparatus, using an intermediate process. A metal grid is fixed in the middle of the still, which keeps all the flowers above the water. Consequently, the distillation is made practically in dry steam without maceration. Partial saponification is avoided by this method. Just now, the three methods are used for the whole production.

The harvest begins in August. The quality of the oil is all the better when the season is hot and dry. A cloudy summer brings a plentiful blooming, but the yield in oil is not large. Similarly, flowers cut in the morning yield less than those gathered in the afternoon.

The small landowners cut their crop themselves. The great distillers buy the lavender flowers per 100 kilos, either on the spot or delivered at the factory. During the last few years prices have been variable. For example, 100 kilos of flowers cost approximately 20 francs during the year 1919,—100 fr. during the year 1920; 100 fr., in year 1925; 210 fr., in year 1926; 100 fr., in year 1927; 140 fr., in year 1928; 100 fr., in year 1929; 65 fr., in year 1930.

Before the war, the lavender market was already unsettled. From one year to another, the prices were incredibly unsteady, from 8 francs a kilo in 1890, the price of lavender oil rose to 20 francs during the year 1907.

We have inserted in the following table, the average prices of the year 1912 for the commercial qualities with 40% of ester:

1912.... 25- 30 fr.	1921....190- 70 fr.
1913.... 35- 40 "	1922.... 65- 70 "
1914.... 45- 40 "	1923....170-180 "
1915.... 25- 30 "	1924....250-260 "
1916.... 30- 35 "	1925....240-250 "
1917.... 40- 45 "	1926....340-360 "
1918.... 55- 70 "	1927....170-180 "
1919.... 90- 94 "	1928....180-190 "
1920....180-190 "	1929....195-205 "
1930....120-125 fr.	

In a day's work at the beginning of the season and on not too hilly ground, a clever cutter can collect one hundreds kilos of flowers. It is very hard work, but, according to the above figures, pretty well remunerated.

The use of lavender oil has considerably increased. This fact has favored the expansion of industrial cultivation and the production which was, during the year 1900, estimated at 50,000 kilos is at present round about 150,000 kilos, for the best years. These figures are difficult to fix

GREEN GLO---

a highly concentrated Coconut Oil Base

Green Glo liquid soap base is manufactured under strict laboratory control guaranteeing uniform quality and a finished product of fine texture and smoothness. Can be furnished clear white or light transparent green in color. Available in barrels, half barrels or kegs.

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KRANICH'S Powdered Soaps

A complete line made from start to finish in our own plant under the guidance of the best technical skill and with the latest modern equipment.

U. S. P. CASTILE

Strictly U.S.P. powder. Uniform. Finest quality. Cannot develop rancidity.

COCOA - CASTILE

Fine uniform powdered soap made from 50% olive oil and 50% cocoanut oil.

NEUTRAL TALLOW

Pure neutral powdered soap made from high grade tallow.

SHAVING POWDER

High quality, uniform powdered shaving soap.



We are equipped to manufacture any special formula powdered soap and invite your inquiries.



We specialize in supplying the trade in bulk. Let us send you full information, samples and prices.

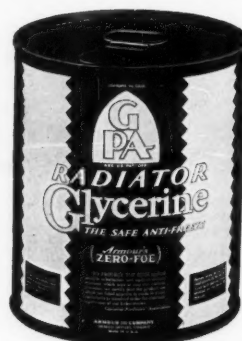


KRANICH SOAP CO.

54 Richards Street
Brooklyn, N. Y.



STEEL SHIPPING CANS & PAILS



No. 9U, 2 to 10 gallons



No. 8UTV, 1 to 10 gallons

Do you use steel shipping cans and pails? Does your product require a removable cover container for fast filling? Do you want a tubular spout, a pouring lip, or will the nozzle be enough? BENETCO can handle any steel shippers your product requires.

WILSON & BENNETT MFG. CO.

Main Office & Factory
6538 S. Menard Ave.
CHICAGO

Eastern Office
39 Cortlandt St.
NEW YORK

Sales Offices in chief cities

Say you saw it in SOAP!

precisely owing to the extent of the cultures and the number of distillers. The foreign production is from 5,000 to 6,000 kilos, about 5% of the world's production.

LAVENDER oil is chiefly used in Soap manufacture. Just after the war, numerous transactions rather heavily increased the price of the oil, but the slump period of 1921 brought back more reasonable prices.

During the year 1924, the business revival, due to the weakness of French exchange, caused a reaction the effects of which are still being felt. The extravagant prices, which were at that time in force, tempted the producers. New cultivations were undertaken and the consequent overproduction, conjointly with the world crisis existing since last year, has brought about the actual fall of prices at the present time.

Let us hope that present low prices will open up new markets which will absorb the whole production. Indeed, lavender oil is more and more used as an antiseptic (for sores and scalp treatment) and insecticide (protection of woolen goods).

The producers tend more and more to group together for the purpose of stabilizing prices. They exhibit their produce in fairs or markets;

the most frequented are those at Digne (B.-A.) and Sault (Vaucluse). These gatherings exist especially for the exhibition of samples with the analysis and weights of the different lots. Little business is transacted there, purchases being made in proportion to needs. We know that several transactions have been effected in the mountains at prices varying between 125 and 135 francs, according to quality.

In the interest of so eminently French an industry as the cultivation of lavender, it is desirable to see the rates settled somewhere about existing prices, which would allow to consumers a wider use of that oil while ensuring to producers profit sufficient for the up-keep of their plantations and factories.

Formulas for Lavender Odors

THERE are innumerable formulas for odors of a lavender character varying with the type of lavender odor desired and the product for which it is designed. For a soap, there is no question but that a lavender note whether a mild one or a strong one gives a fragrance of wide popularity and general satisfaction. It is perhaps the most popular of all soap odors based on straight oils. The following are a few formulas suggested to give various types of lavender odors

RAW MATERIALS for SOAP MAKERS

Specializing in

Olive Oil Foots
Olive Oil
Caustic Potash

Glycerine
Empty Drums
Fats, Oils, Greases

PARSONS & PETIT

Established 1857

26 BEAVER STREET

NEW YORK

Distributors for

DIAMOND ALKALI CO.
PITTSBURGH, PA.

Caustic Soda Soda Ash

Agents for

D. CORREALE SANTACROCE
REGGIO, CALABRIA

Bergamot, Lemon and Orange Oils

Say you saw it in SOAP!

to certain classes of products such as soaps, powders, toilet-waters, etc.

LAVENDER FOR SOAP

Lavender oil, standard, 38/40.....	480 g.
Aspic	200 g.
Petitgrain, S. A.....	100 g.
White Thyme	50 g.
Carvol	50 g.
Lemongrass	10 g.
Cedar	100 g.
Musk Artificial	10 g.

LAVENDER FOR SOAP

Lavender oil, standard, 38/40.....	200 g.
Bois de Rose.....	100 g.
Cedar	150 g.
Sandalwood	150 g.
Bergamot	200 g.
Lemongrass	250 g.

LAVENDER EXTRACT

Lavender oil, fleur	35 g.
Bergamot	5 g.
Lemon	5 g.
Musk Natural, infusion.....	10 g.
Amber, infusion	10 g.
Alcohol, 95%	935 g.

LAVENDER TOILET WATER

Lavender oil, Barreme	800 g.
Lemon	100 g.
Rosemary	100 g.
Bergamot	100 g.
Petitgrain	100 g.
Distilled Water	700 g.
Alcohol, 95%	300 g.

LAVENDER FOR SOAP

Lavender oil	150 g.
Bergamot	75 g.
Vetivert, Bourbon	20 g.
Cassia	10 g.
Cedarwood	50 g.
Oleoresin Oak Moss.....	100 g.

LAVENDER BOUQUET FOR SOAP

Lavender, standard, 38/40.....	200 g.
Bergamot	200 g.
Lemongrass	100 g.
Bois de Rose	200 g.
Petitgrain	200 g.
Patchouli	100 g.
Coumarin	150 g.
Oleoresin Oak Moss.....	500 g.

LAVENDER FOR POWDERS

Lavender, Barreme	300 g.
Benzyl Acetate	100 g.
Linalyl Acetate	100 g.
Geranyl Acetate	20 g.
Jasmin Synthetic	25 g.
Ylang Ylang Bourbon.....	30 g.
Hydroxycitronellal	90 g.
Bergamot	80 g.
Rose Red, Synthetic	50 g.
Lavender Absolute	15 g.
Musk Ketone	20 g.
Coumarin	10 g.
Sage essence	2 g.

Capper-Kelly Bill

(From Page 34)

OBVIOUS as is the course prescribed, there are obligations in connection with trade marking for price control which are worthy of passing notice. The statute, if it comes to pass, will make no demand as to what type or form of trade mark shall be employed,—whether a suggestive word, a coined name, a picture, symbol or device. Yet it will be the part of wisdom for the brander to avoid trade mark expressions that might produce complications. For example, the trouble-dodger will have a care to pick a mark that can be demonstrated to have no other meaning than that of a clue to his particular make of goods. Any notation which could be accused of being a grade-mark, or formula-mark,—pointing to the composition, character or quality of the goods rather than to source or origin alone,—might encounter its own troubles because grade-marks, scent-marks, etc., are supposed to be the common property of all the members of an industry and not subject to capture as trade marks by individual houses.

Considerations of conspicuous trade mark display will take on a new importance if price maintenance comes to pass. It will be essential to render readily recognizable, by its nickname or trade mark "dress," the article of commerce that is subject to an inherited price stipulation. Likewise, the resale price angle would operate to force the user of multiple trade marks to focus the greatest attention upon a single, dominant trade mark. There would, under the new status, be no more objection than there is now to the use of two or more trade marks on one soap product at the same time. But, in order to conform whole-heartedly to the Resale Price Fixing Act, a brander would be well advised to play up one indicia of origin as *the* trade mark.

Among soap marketers who might desire to play safe in seizure of opportunity to fix resale prices, the effect of permissive legislation must inevitably be to stiffen the inclination to register trade marks at the U. S. Patent Office at Washington. It is true that the bill, as interpreted, would be satisfied by the use of a brand or even a *trade name* as readily as by a *simon-pure* trade mark. At the same time, registration of a mark is calculated to give a sense of security in the new circumstances. Federal certification would afford *prima facie* evidence that the mark was a technical trade mark and in the event that complications grew out of the use of the same mark by two or more price fixers would testify to priority based on the registrant's date of first use.

Soap in French West Africa

There are thirteen vegetable oil factories in French West Africa at the present time. There are also two soap factories, one at Conakry, French Guinea, and the other at Porto Novo, Dahomey. The annual production of the thirteen oil factories is estimated at present at around 7,800 metric tons and that of the two soap factories at a little more than 200 tons. The soap-making industry is still in its infancy in French West Africa. The two concerns existing in French Guinea and Dahomey utilize palm oil for the manufacture of soap and their returns are too poor to have an influence on native production. It is stated, however, that one of the oil factories at Dakar is considering the establishment of a soap factory. (Report from Senegal by Vice Consul John J. Coyle.)

Introducing New Lifting Machines

Economy Engineering Co., Chicago, has announced a new line of hand and power operated lifting machines which are available in both plain and telescoping models. These are ball bearing equipped, this feature reducing the necessary cranking pressure on the hand operated machines and furnishing greater lifting speed on the electric type. Automatic limit stops prevent over-travel of the lifting platform by stopping power and applying brakes which hold the platform from falling.

Correction on Glycerine

We find that we have spread a wrong impression through publication in our December issue of a set of figures which seem to show that total domestic production of glycerine in 1930 amounted to 192,686,509 lbs. This total was obtained by adding the number of crude pounds produced, 105,666,956, to the totals for dynamite, 36,916,305, and C. P., 50,103,248 lbs. As a matter of fact the greater bulk of the domestic dynamite and C. P. is made out of domestic crude so the addition of the three totals presents a wrong picture. The crude figure alone is more nearly a true reflection of domestic production.

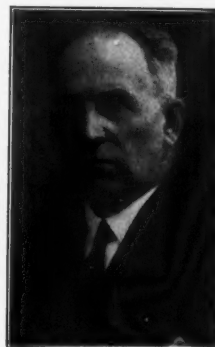
A patented textile soap is prepared by mixing in the order given, Marseilles soap 200 parts, tallow soap in powder form 95, soda ash 20, borax 10, turpentine 25, caustic soda 20 and water 30 parts. French Pat. No. 685,412, 1930.

Insects of all kinds abound in Paraguay and household sprays find a ready sale. The best period for retail sales is the summer season, from November to March. Several well-known American brands have been introduced. Some European and Argentine products are also on the market.

J. L. Hopkins & Co., botanical drugs, New York, recently announced the appointment of Bernard G. Merrill as sales manager. He was formerly with the sales department of S. B. Penick & Co., New York.

An Expression of Thanks and Appreciation from Julius Schaal

On the eve of my returning to Germany, I take this means of expressing my thanks to those soap manufacturers in the United States who extended to me an invitation to demonstrate my soap manufacturing processes in their plants and who have adopted the same, as also do I wish to express my appreciation of the cordial and encouraging reception extended to me by the members of the industry in general.



Will Return to the U. S. in February

I shall return to the United States about the middle of February to fulfill several contracts that were left pending at the time of my departure; and in the meantime any other firms desiring further information about my processes may address correspondence to me as follows:

JULIUS SCHAAL

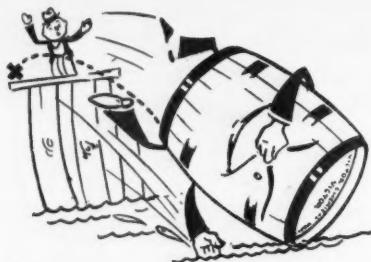
P. O. Box 88, Hudson Term. Sta., New York City.

My Methods Are Adaptable For

soap chips, guaranteed 100% saponification (with great savings of material, labor and time), stretched soap (something new), to be used in all kinds of soap and produces a better soap than heretofore.

Say you saw it in SOAP!

VICTOR TSP



EXTRA!!
Phosphate Phil
Disappears--

X MARKS the spot where victim was last seen. Eyewitnesses report they saw him tumbling into the water. Careful search fails to reveal body. Vanishes instantly.

Much as it might seem that way, there is really nothing particularly mysterious about our hero's disappearance. VICTOR TRI SODIUM PHOSPHATE, as all who use it know, is instantly soluble—a great time and material-saving feature.

Liberal Sample on Request

VICTOR CHEMICAL WORKS
343 S. DEARBORN STREET, CHICAGO
New York Nashville St. Louis

FREE FLOWING

AN ADHESIVE FOR EVERY
MACHINE OR HAND OPERATION

They Know Their Adhesives

Our representatives are adhesive specialists. They can talk to you in your own language. It is their job to make specific recommendations with a view to solving your adhesive problems.



ADHESIVES

A perfected adhesive for every standard or special operation:

GUMS

GLUES

PASTES

May we send a representative to analyze your requirements?



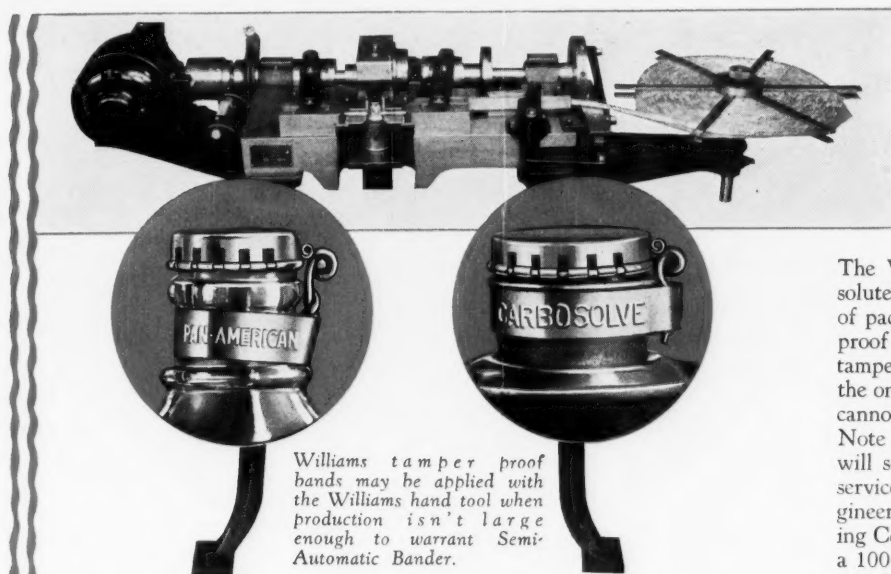
NATIONAL ADHESIVES CORPORATION

Executive Offices: NEW YORK

WORLD'S LARGEST PRODUCER
OF ADHESIVES

Say you saw it in SOAP!

INSECTICIDE AND DISINFECTANT REVIEW



Tamper proof banding material, stamped with your name if you desire, feeds continuously from reel. Machine is fed by inexperienced labor.

Tamper Proofing Made Simple with new Williams *Semi-Automatic* BANDING MACHINE

If your problem is one of securing positive protection against tampering with the contents of your bottle or can, then this new machine is the answer. We guarantee absolute satisfaction.

The use of Kork-N-Seal and the new tamper proof band, applied either with this low cost semi-automatic band machine or hand tool, gives you a 100 per cent tamper proof package.

The new Williams Automatic Straight Line Capper will interest every manufacturer who has a capping operation. Cuts bottle breakage down to new low figures. Simple in construction and operation. Caps 60 to 100 bottles or cans per minute. Write for more information.

The Williams Kork-N-Seal is absolute protection against imitation of package. The Williams tamper proof band is guarantee against tampering, because Kork-N-Seal is the only part of the package which cannot be duplicated.

Note the illustrations and you will see that this complete closure service as developed and engineered by the Williams Sealing Corporation not only gives you a 100 per cent tamper proof package, but it adds considerable sales value by giving you a most businesslike and authoritative looking package.

Again, let us say if your product is one that should be made tamper proof, write us so that we may give you complete information about this new service.

**WILLIAMS SEALING
CORPORATION**

Decatur, Illinois

Williams
KORK-N-SEAL
THE CAP WITH THE LITTLE LEVER

DON'T HANDICAP 1931 SALES

BY OLD FASHIONED PACKAGING

If there is the slightest doubt in your mind as to whether your package combines the essentials of a modern, sales-building container, it will pay you to call a Continental representative immediately for consultation.

Packages which a few years ago were "good enough" may be a severe handicap to your sales in 1931.

Perhaps you've noticed that artistically a change is creeping into almost every type of merchandise. Are your packages keeping pace with the fast-changing sales problems of today?

This is an era of package merchandising—more and more manufacturers are using modern packages as sales aids at "points of purchase."

Continental's packaging specialists are constantly adding to the list of satisfied manufacturers who find the marketing of better cans more attractively lithographed, a powerful aid in increasing their sales.

Plan now to overcome the sales resistance of 1931 with correctly designed, brightly lithographed Containers by Continental.

From Actual Letters in our files

This new . . . container has been a gratifying success from the start, and has assisted in materially increasing sales.

. . . the package precisely reflects the high quality of merchandise it contains. Its development at this time has resulted in added gains in sales and the line has met with enthusiastic reception in all directions.

Your handling of our orders . . . enables us to deliver our products to the consumer in a very attractive and uniform container.

—there have been so many favorable comments upon the attractive appearance . . . we feel certain these cans will have a very healthy effect on the sale of . . .

. . . and we have had the opportunity to observe the special capacity of your company to encounter and overcome difficulties . . .



SYMBOL
OF
QUALITY AND SERVICE

CONTINENTAL CAN COMPANY INC.

Executive Offices: NEW YORK: 100 East 42nd St.

CHICAGO: 111 West Washington St.

SAN FRANCISCO: 155 Montgomery St.

CHICAGO	CINCINNATI	WHEELING	PASSAIC	SAN JOSE	BALTIMORE	OAKLAND	NEW ORLEANS	ROANOKE
BOSTON	DETROIT	JERSEY CITY	LOS ANGELES	CLEARING	CANONSBURG	JACKSONVILLE	SAN FRANCISCO	SYRACUSE
NASHVILLE	HURLOCK, MD.	DALLAS	E. ST. LOUIS	DENVER	SEATTLE	BEDFORD, VA.	KANSAS CITY, MO.	HAVANA, CUBA

"It's Better Packed in Tin"

Say you saw it in SOAP!

For Perfuming

PARADICHLORBENZENE BLOCKS *and* CRYSTALS *use* ELKO POPULAR PERFUME OILS

They actually cover and delightfully perfume

A FEW OF OUR LEADERS

Carnation P.D. — \$5.00 per lb.	Lilac P.D. — \$3.75 per lb.
Chypre P.D. — \$5.00 “ “	Narcisse P.D. — \$4.50 “ “
Corylopsis P.D. — \$3.75 “ “	Rose P.D. — \$5.00 “ “
Jasmin P.D. — \$5.00 “ “	Rose K. — \$5.00 “ “
Lavender P.D. — \$5.00 “ “	Violet P.D. — \$5.00 “ “

Only 12 oz. to 16 oz. to the 100 lb. is required.

For Coloring and Perfuming Blocks and Crystals *use* ELKO COLORODORS

The soluble color and odor combinations that uniformly color and actually perfume the product. Full list on request.

For Theatre Sprays *use* ELKO WATER SOLUBLE PERFUMES

Produced in all odors: Trial Pints \$2.50 Post Paid. Special Quantity Prices.

For Insecticide Sprays *use* ELKO SPRAODORS

Priced at \$1.00 per lb. up.

E. M. LANING COMPANY

78-80 GREENWICH STREET NEW YORK, N. Y.



Aromatic Chemicals, Essential Oils, and Per-
fuming Specialties of all kinds for Manufac-
turers of Soaps, Disinfectants, Theatre Sprays,
Fly Sprays and Allied Products.

*Say you saw it in SOAP!*

BEFORE AND AFTER

THE INTRODUCTION OF

ALSOP EQUIPMENT

Step by step, **ALSOP "Hy-Speed"** Equipment has wrought a great change in production methods during the last decade. There is no longer any economy in processing soaps and insecticides by old-fashioned, wasteful methods.

MIXING

"Hy-Speed" Portable Electric Mixers do a more thorough job than the most elaborate, bulky equipment. Yet they can be moved from tank to tank as easily as the old fashioned paddle. These machines are made in many types and sizes to mix quantities from **one to 50,000 gallons**.

FILTERING

"Hy-Speed" Internal Pressure Filters forces light liquid soaps, etc., through two layers of filter cloth and one layer of French Filter Paper, speedily producing a highly polished product. **Cleans semi-automatically in two minutes.** Portable, operating from light socket. Inexpensive and economical to use.

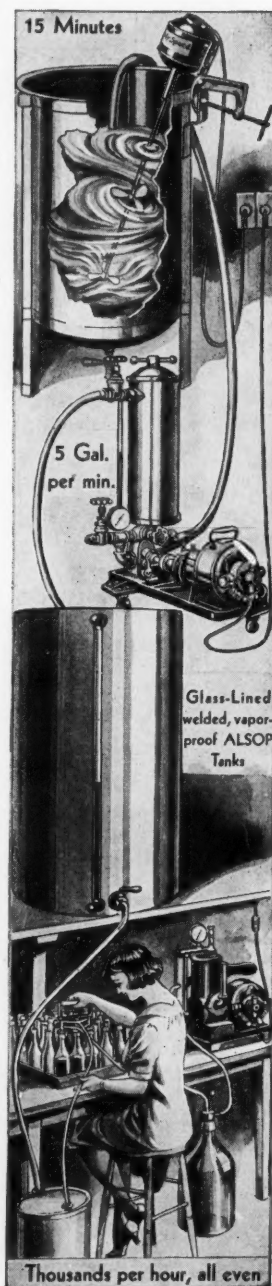
GLASS-LINED TANKS

ALSOP Glass-Lined Tanks are made in all sizes from one to 200 gallons, for either mixing or storage. They are proof against corrosive action and contamination of the product.

FILLING

The **"Hy-Speed Vacuum Bottle Filler"** is a real machine for filling all liquid products in small cans or bottles, such as Insecticides, Polish, Cleaning Fluid, etc. **It fills every container evenly and rejects any that might leak.** Instantly adjustable to different sizes. Easily cleaned for use on different products. **lowest in price.**

ALSOP
ENGINEERING COMPANY
39 West 60th St. New York City



Say you saw it in SOAP!

POWCO
BRAND
REG. U.S. PAT. OFF.

A trade mark may be only a handy name or it may be a symbol of integrity.

Since the advent of POWCO BRAND it has steadily grown as a mark of integrity in Pyrethrum Products.

POWCO BRAND Insect Powder means one product and one quality,—the very best Pyrethrum that it is possible to obtain by careful selection through chemical and entomological tests.

Manufacturers who bought Pyrethrum ten years ago can well recall the confusion resulting from the many ill-founded and conflicting statements made regarding the product at that time.

That there has been a noteworthy improvement in the manner in which Pyrethrum is marketed cannot be denied and that POWCO BRAND contributed in large measure to this improvement is quite generally conceded.

We started out with the determination to be honest in the representation of our product. POWCO BRAND has always been offered to you on the straight-forward basis of its consistent dependability and real killing power content.

mi " *Immunity* " " " "**"Killing Power—That's the Thing"**

JOHN POWELL & CO., Inc.

SPECIALISTS IN PYRETHRUM PRODUCTS

114 E. 32nd Street

New York, N. Y.

Say you saw it in SOAP!

Baird's

The Standard of Highest Quality

Cresol Comp. U. S. P.

also known as Liquor Cresolis Compositus, U. S. P., is made in exact accordance with the specifications of the U. S. Pharmacopoeia. Phenol coefficient $2\frac{1}{2}$ to 3. Dilutes with water to form clear, amber-colored solutions. Largely used by the medical profession, hospitals and veterinarians.

Crestall Compound

is similar in composition, appearance and odor to Cresol Compound, U. S. P., but prepared from refined cresylic acid as a base. Approximately twice as strong as the U. S. P. product, and very effective in preventing the spread of animal diseases.

Mosquito Larvaecide

A coal-tar product employed for killing mosquito larvae. Effective in dilutions of 20,000 to 40,000 to one. Superior to petroleum oil, as it is not affected by rainfall or wind and does not involve fire hazard.

Pes-Tox Insecticide

of the pyrethrum type, pleasantly scented. Quickly kills practically every type of crawling, flying and hopping insect. Light lemon color. Especially effective when used in the form of a spray.

Pine Oil Disinfectant

A fragrant pine product, made from pure steam-distilled pine oil according to the formula of the Hygienic Laboratory of the U. S. Public Health Service. Mixes freely with water to form good milk emulsions, with pleasant pine odor. Free from mineral oil or other adulteration.

BAIRD & MCGUIRE, INC.

Holbrook, Mass.

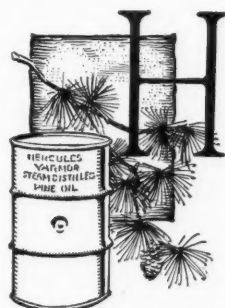


St. Louis, Mo.

Warehouse stocks at convenient points throughout the country.

Say you saw it in SOAP!

YARMOR — A product that serves many industries



HERCULES Yarmor Pine Oil, when properly compounded, produces a series of products valuable to many manufacturers.

Yarmor's fragrant, piney odor and germicidal action have established it as a major ingredient in deodorants and disinfectants. Its repellent action towards flies and other insects has standardized it among disinfectant manufacturers who sell to farmers and dairymen.



The pronounced detergent properties of Yarmor have interested the liquid and semi-paste scrubbing soap and laundry soap manufacturers.

Yarmor's emulsifying and preserving properties have met with the approval of metal and furniture polish manufacturers.



We want to discuss these developments with manufacturers in these fields.

NAVAL STORES DEPARTMENT

HERCULES POWDER COMPANY
INCORPORATED

961 Market Street, Wilmington, Delaware

Branch Offices: Birmingham • Chicago • New York • St. Louis • Salt Lake City • San Francisco
Largest producer of pine oil, wood rosin, and steam-distilled wood turpentine



HERCULES POWDER COMPANY, 961 Market Street, Wilmington, Delaware

Please send me a copy of your booklet, *The Efficiency of Hercules Yarmor Pine Oil in Disinfectants and Insecticides.*

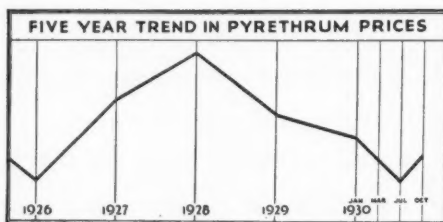
Name..... Company.....

Street..... City..... State..... QQ-9

Say you saw it in SOAP!

The Market is Right

NOW *to contract for your 1931 Pyrethrum Requirements*



Buying Pyroicide No. 20. NOW . . . Will Save You Money

VARIOUS factors make it possible for us to quote extremely attractive prices on Pyroicide No. 20 for your 1931 requirements. You may save money by getting our quotations before making your 1931 contracts. Wire or write us immediately, giving us an estimate of your needs.

We can also supply Pyrethrum flowers in whole, ground or powdered form on a low basis . . . stocks at New York, Minneapolis, and Los Angeles.

In addition to the favorable pyrethrum market, our world wide outlet has enabled us to make large pur-

chases of flowers at most favorable figures. Also, our new and increased production facilities enable us to manufacture on an extremely low cost basis. For 1931 contracts we are passing on the full benefits from these various factors.

Pyroicide No. 20 is an oil soluble extract of Pyrethrum flowers, each gallon of Pyroicide No. 20 containing all of the active principle from 20 pounds of Pyrethrum flowers having a pyrethrin content of 0.75%. Pyroicide No. 20 is guaranteed and labelled to contain 1.8 grams of pyrethrins per 100 cc. Shipped in steel drums containing 10, 30 and 53 (American) gallons.

PYROCID No.20

CONCENTRATED EXTRACT OF PYRETHRUM FLOWERS

Wire Today, McLAUGHLIN GORMLEY KING COMPANY
1715 Fifth Street S. E., Minneapolis, Minn.

INTRODUCING

Paratints

Series "A" 2.00 lb.

Series "B" 4.50 lb.



Perfume and color paradichlorobenzene in one operation. Offered in two price ranges to meet all price gradations.

Paratints are available in various floral and bouquet scents. Also recommended for popularly priced bath salts.

We will Gladly Send Samples on Request

Givaudan-Delawanna, Inc.

80 FIFTH AVE.

NEW YORK, N. Y.

Say you saw it in SOAP!

Perfumes for Naphthalene

1. Successfully soften the naphthalene odor.
2. Impart a pleasant odor to the naphthalene ball or cake.
3. Stand up in actual use, and are easy to work with.
4. Are priced low, with perfuming strength and quality considered.

Rose Orange Blossom Pine Cedar
Chypre Violet Oriental and other odors

Send for Samples

\$4.00 per lb.

van Ameringen-Haebler, Inc.

Aromatic Essentials

315 Fourth Avenue, New York
180 No. Wacker Drive, Chicago
619 Clark Avenue, St. Louis
42 Wellington Street, E., Toronto
Factory, Elizabeth, N. J.

20 fine new odors for Para blocks

\$1.50 per lb. and up

Colors right in the oil if you want them.

Rose	Lilac	Violet	Orange Blossom	Bouquet	Oriental	Cedar
Pine	Jasmin	Carnation	Lavender	Mint	New Mown Hay	

*Send for samples. See for yourself
how our oils improve your products.*

For the new season—try our FLY
SPRAY oils. Made especially for spray
use. Jasmin, New Mown Hay, Orange
Blossom and Bouquet 118 are popular.
Many others. Send for samples

van Ameringen-Haebler, Inc.

Aromatic Essentials

315 Fourth Avenue, New York
180 No. Wacker Drive, Chicago
619 Clark Avenue, St. Louis
42 Wellington Street, E., Toronto
Factory, Elizabeth, N. J.

Perfumes for Naphthalene

1. Successfully soften the naphthalene odor.
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3. Stand up in actual use, and are easy to work with.
4. Are priced low, with perfuming strength and quality considered.

Rose Orange Blossom Pine Cedar
Chypre Violet Oriental and other odors

Send for Samples

\$4.00 per lb.

van Ameringen-Haebler, Inc.

Aromatic Essentials

315 Fourth Avenue, New York
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20 fine new odors for Para blocks

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Colors right in the oil if you want them.

Rose	Lilac	Violet	Orange Blossom	Bouquet	Oriental	Cedar
Pine	Jasmin	Carnation	Lavender	Mint	New Mown Hay	

*Send for samples. See for yourself
how our oils improve your products.*

For the new season—try our FLY
SPRAY oils. Made especially for spray
use. Jasmin, New Mown Hay, Orange
Blossom and Bouquet 118 are popular.
Many others. Send for samples

van Ameringen-Haebler, Inc.

Aromatic Essentials

315 Fourth Avenue, New York
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42 Wellington Street, E., Toronto
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INSECTICIDE AND DISINFECTANT REVIEW



Official Publication of The Insecticide and Disinfectant Manufacturers Association.
Harry W. Cole, Holbrook, Mass., Secretary.

VOLUME SEVEN

NUMBER ONE

What Is Pine Disinfectant?

WHAT is a pine oil disinfectant? The several controversies which have arisen during the past year in regard to the addition of mineral oil, that is kerosene, to pine oil disinfectants most certainly require some kind of an answer to this question.

According to the Hygienic Laboratory formula for pine oil disinfectant, there are only three ingredients, steam-distilled pine oil 1,000 parts by weight, rosin 400 parts by weight, and a 25 percent solution of caustic soda 200 parts by weight. Nothing is mentioned about kerosene, mineral oil, or other product to be added. Then why is kerosene added? Purely and simply to reduce the cost of the product, to increase the gallonage of the original batch so that it can either be sold at a lower price per gallon or at a wider margin of profit.

The addition of kerosene to a pine oil disinfectant is adulteration,—nothing else. Calling it by another name does not alter the fact. That it is done to reduce costs and enable the makers "to meet cheap competition with a cheap product," likewise does not excuse the practice. That it is cheapened so that it can sell on a parity with coal-tar disinfectants, is also beside the question. Pine oil disinfectants cost more to make than most coal-tar products and consequently should sell for more.

A pine oil disinfectant is a product made from steam-distilled pine oil with saponified rosin or other emulsifying agent and without the addition of anything else. Where other things are added which reduce the percentage of pine oil content, this becomes adulteration, and the use of the name "pine

oil disinfectant" should be forbidden the product.

Teaching Pest Control

AT the Purdue University School of Agriculture, the principles of insect life and their control through the use of commercial insecticides will shortly become part of the teachings of the course given to pharmacy students. Insects, including household insects and livestock pests, will be studied with a view to their practical control. The co-operation of manufacturers of household and other insecticides has been requested by a representative of the University. Samples of products, data, raw materials, labels, instructions for use, and other information has been requested.

Recognition of the need for instruction in insect control as part of a course not designed primarily for agricultural students, is significant. Courses in entomology are mostly lacking in this apparently important feature of economic entomology. It is something which the United States Department of Agriculture has been studying for years, but which has heretofore been ignored in the great majority of college courses in entomology, pharmacy or chemistry. Taking up the subject from the aspect of commercial insecticides is a distinctly new step, and one which should be particularly beneficial to manufacturers, and should receive their full support.

Dr. George W. Hoover, consultant on foods, drugs, insecticides, formulas, labels and application of State and Federal Laws, has recently moved his office to Shoreham Building, Washington, D. C.

The Insecticide and Disinfectant Manufacturers Association



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Active — Open to manufacturers and wholesale distributors of disinfectants, germicides, deodorants, insecticides, liquid soaps, polishes, and allied products. Dues—\$75.00 per year.
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For further details, communicate with

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Notes of the Trade

John H. Haywood, son of the late Dr. J. K. Haywood who was for twenty-five years chief of the Insecticide and Fungicide Board of the Department of Agriculture, has been appointed sales manager for the Memphis division of the National Disinfectant Company, of Memphis, Tenn. Mr. Haywood, like his father, graduated from Cornell University. He was formerly connected with Baird & McGuire, Inc., of St. Louis.

—o—

Dr. Robert C. White of the Robert C. White Chemical Co., Philadelphia, and president of the Insecticide & Disinfectant Manufacturers' Association, for many years prominent in American rowing circles, was recently re-elected commodore of the Schuylkill Navy, made up of Philadelphia rowing clubs, at its annual meeting. Dr. White is a member of the Penn A. C., Philadelphia.

—o—

Leeno Products Co., Baltimore, manufacturers of janitors' supplies, recently enlarged its new plant to take care of increasing business. Several large soap vats have been added, and 11,000 additional square feet of warehouse space is now available.

—o—

Chemical Supply Co., Cleveland, has added several new products to its line for 1931, according to an announcement by Henry A. Nelson, vice-president. The new products include new grades of cattle spray, drain pipe opener, liquid toilet bowl cleanser, and one or two others. All are available in bulk for the jobbing trade.

—o—

The following new members of the Insecticide & Disinfectant Manufacturers' Association have been announced: Standard Oil Co. of California, San Francisco, represented by G. H. Richardson; The Barrett Company, New York, represented by J. E. Bonnebeau; General Laboratories, Madison, Wis., represented by William A. Hatfield.

—o—

Dipentene, which is obtainable in the manufacture of camphor from turpentine, is said to have a higher insecticidal value than turpentine, especially against waxy insects. An insecticide containing dipentene may be made as follows: 400 parts dipentene, 215 parts rosin, 20 parts caustic soda and 365 parts water are cooked together and the mixture emulsified in water in the proportion of 1:10. Ger. Pat. No. 504,333.

Say you saw it in SOAP!

A Review of Methods for EVALUATING PYRETHRUM FLOWERS

By C. B. GNADINGER*

Chief Chemist, McLaughlin Gormley King Co.

IN a recent number of *Soap*, the editor lamented that every time he mentioned pyrethrum editorially or otherwise he trampled on somebody's toes, or ran his nose up against a buzz saw. He went on to say that no two people seemed to hold the same views on pyrethrum; some claim that Japanese flowers are superior, others prefer Dalmatian. He also found lack of agreement on the comparative value of the chemical and biological tests, and he pointed out, quite correctly, that all of this controversy is very confusing to the consumer. Having been fairly close to the center of the controversy, I have a number of hitherto unpublished facts that have a bearing on some of the disputed points, which may be of interest to you. For this reason I have availed myself of the privilege of talking to you on the evaluation of pyrethrum.

In considering this subject, it is hardly necessary to discuss, in detail, the work published prior to 1924. The chemical methods in use at that time were limited to such determinations as the ether extract, petroleum ether extract, nitrogen and ash constituents such as phosphoric anhydride and manganese; all of these are now known to be wholly unrelated to the active principle content. The biological methods of that time were equally inadequate and were restricted to tests made by applying the powdered flowers to flies, roaches, aphids and other insects.

In 1924, Staudinger and Ruzicka⁹ published their work on the isolation and identification of the active principles; it was remarkable for the skill and thoroughness with which it was done. In the same year, Tattersfield¹² described his carefully constructed apparatus for testing solutions of contact insecticides on specially reared aphids. About the same time, the increasing use of pyrethrum-oil sprays resulted in the development of tests employing these sprays on flies or roaches. These tests were a distinct improvement over the use of powdered pyrethrum, and were the forerunners of the present Peet-Grady method. The first chemical methods for assaying pyrethrum were published by Staudinger & Harder⁸ in 1927. The Peet-Grady⁷ biological test was described in 1928, while in 1929 Tattersfield's¹¹ modifications of Staudinger & Harder's method were published. In the same year, the copper reduction method of Gnadinger & Corl¹ was developed.

The principal methods in use today can, therefore, be divided into two groups:

The chemical methods including:
Staudinger & Harder's acid method.

Staudinger & Harder's semicarbazone method.
Tattersfield's modification of the semicarbazone method.

Tattersfield's modification of the acid method.
Gnadinger & Corl's copper reduction method.

The biological methods comprising:

Tattersfield's method employing alcoholic pyrethrum extract on aphids.

Oil spray methods using roaches as test insects.

Peet and Grady's method using flies.

THE semicarbazone method of Staudinger & Harder depends on the isolation of the crude semicarbazones of the pyrethrins in substantially the manner employed by Staudinger & Ruzicka⁹ with subsequent calculation of the percentage of pyrethrins from the nitrogen content of the semicarbazones, determined by the Kjeldahl method. The acid method consists of saponifying the crude pyrethrins with alcoholic soda solution, separating the two chrysanthemum acids by steam distillation and extraction with ether and calculating the percentage of pyrethrins from the titration of the acids. These two methods were not accurate even in the hands of their originators. For example, duplicate determinations on one sample showed 0.34% and 0.41% by the acid method and 0.27% by the semicarbazone method; duplicates on a second sample were 0.25% and 0.51% and on a third sample 0.25% and 0.31% by the acid method. A fourth sample showed 0.42% by the acid method and 0.34% by the semicarbazone method. Moreover the methods were long and difficult and required 500 grams of sample for a single assay; they can hardly be considered quantitative methods but they did serve as the basis for Tattersfield's work.

Tattersfield's methods are adaptations of the Staudinger and Harder methods using 10 grams of sample instead of 500 and embodying a number of changes and refinements in technique. Tattersfield's semicarbazone method is so long and tedious that it is hardly usable as a practical method. The acid method for determining pyrethrin I is rapid, but that for determining pyrethrin II is quite long. Both Tattersfield's semicarbazone method and acid method give accurate results in the hands of analysts experienced with the methods and results obtained by the two methods on the same sample check very satisfac-

*Before the Insecticide & Disinfectant Manufacturers' Association, New York, December, 1930.

torily. Later Tattersfield¹⁰ published a rapid acid method for determining only pyrethrin I.

The copper reduction method developed in our laboratory is based on the fact that both pyrethrins contain a ketone group which reduces alkaline copper tartrate solution in the same manner as the reducing sugars. The Folin method for determining blood sugar has been adapted to determining the reducing power of the pyrethrins. This method has the same degree of accuracy as the Tattersfield acid method and has the advantage of being much more rapid. Disregarding the time required for extracting the flowers with petroleum ether, which is the same for all methods, two men can easily assay 6 to 8 samples in a single day.

As soon as these chemical methods were published, the question of their comparative accuracy was immediately raised. The methods of Staudinger and Harder were almost completely disregarded because of their obvious lack of accuracy and because Tattersfield's modified acid method was so much more satisfactory.

IN 1929, the United States Department of Agriculture analyzed 10 samples of pyrethrum using Staudinger and Harder's acid method and Tattersfield's acid method. Portions of these 10 samples along with 10 others were kindly supplied us by Dr. McDonnell. We carefully assayed the 20 samples by our method and reported the results to the department, with permission to publish. The comparison of the results obtained by the three methods was published by the department¹³ in July, 1930. The results did not agree. The Staudinger & Harder method yielded percentages almost double those obtained with Tattersfield's, and our method and the latter method did not check well. Considerable publicity was given to these analyses in 1929 and they formed the basis for most of the reports that Tattersfield's method and our method did not check.

If these analyses are closely examined, one is immediately struck by the extremely small percentages of pyrethrin I found by the government analyst using Tattersfield's method. The proportion of pyrethrin I to pyrethrin II is as low as 1:10 and is never more than 1:2.8; the lowest ratio reported by Tattersfield is 1:1.7 and the highest 1:0.9. It occurred to me, therefore, that the lack of agreement might be due to the fact that the department analyst was not thoroughly familiar with the methods, which were new, rather than to any real difference between the two methods. I accordingly wrote to one of the foremost insecticide chemists in Europe and suggested a series of reciprocal analyses. He agreed to assay two samples by his method and ours and we assayed the same samples by our method. One of the samples (No. 82) was a high test Japanese pyrethrum, and the other (No. 42) was one of the samples we had assayed for the Department of Agriculture. We also submitted sample No. 82 to one of the largest oil companies. Part of this sample was also sent to a research worker in one of the prominent state universities. These analyses are presented in Table I.

Table I. Analyses of Pyrethrum Samples by Different Laboratories.

Laboratory	Sample No.	Tattersfield Method Pyrethrin I Pyrethrin II Pyrethrin Total			Gnading-Corl Method Total Pyrethrins
		%	%	%	%
European	82	0.39 0.38	0.60 0.60	0.99 0.98	0.92
Oil Co.	82				0.95 0.95
State University ..	82	0.36 0.37 0.38 0.38			
McLaughlin Gormley King Company	82				0.97 0.97 0.97 0.93
European	42	0.20 0.20	0.24 0.22	0.44 0.42	0.40 0.42
McLaughlin Gormley King Company	42				0.39 0.39

In reporting his results the European chemist mentioned that he had employed the two methods to some extent on other samples obtaining results not beyond the experimental error which, as shown above, is about 5%. It is quite obvious from these analyses made in four different laboratories that Tattersfield's method and our method check excellently in the hands of experienced analysts. The Department of Agriculture analyses appear to be in error.

ANOTHER objection that was raised to our method is the fact that it determines the total amount of pyrethrins I and II combined, while Tattersfield's method determines the two pyrethrins separately. The work of Staudinger and Ruzicka⁹ had shown that pyrethrin II was nearly as toxic as pyrethrin I and our work on the pure pyrethrins, isolated direct from the flowers, had confirmed this conclusion. If the two pyrethrins are equally toxic, a determination of the total pyrethrin content of a sample would indicate its toxicity. Tattersfield¹¹, however, had found that pyrethrin II was only one-tenth as toxic as pyrethrin I. He concluded that the amount of pyrethrin II present was of no importance and that a determination of pyrethrin I alone would indicate the toxicity of a given sample. The pyrethrins used by Tattersfield in his work were partially synthesized from pyrethrolone and the chrysanthemum acids by the method Staudinger and Ruzicka had recommended. The latter pointed out that the partially synthesized pyrethrins do not yield semicarbazones of sharp melting point and suggested that a change may have taken place in the side chain or that isomers may be present. Tattersfield also mentions the great difficulty of synthesizing the pyrethrin II and also suggests that his pyrethrin II may have contained isomers, lowering the toxicity. Tattersfield also expressed the opinion that the difference between his experiments on the one hand and Staudinger's and ours on the other might be due to the fact he had used a resistant strain of aphids while we had used roaches, which he had found extremely susceptible to pyrethrins. We accordingly repeated the work

of isolating pyrethrins I and II direct from the flowers and compared their toxicity to flies by the Peet-Grady method. The biological tests were made by Mr. Grady, one of the originators of the method, and proved conclusively that pyrethrin II is about 80% as toxic as pyrethrin I⁴. We have reason to believe that the toxicities of the two pyrethrins are inversely proportional to their molecular weights, that is, pyrethrin II is 88% as toxic as pyrethrin I.

A third question raised in regard to our method is whether the presence of decomposed pyrethrins would not interfere by reducing the copper solution as the pyrethrins do, without having any insecticidal value. We investigated this point rather carefully when we were developing our method. We found that when the pyrethrins decompose from exposure to the air or to heat, they form resinous bodies that are insoluble in petroleum ether. This is true of both pyrethrin I and II. The solubility of these altered pyrethrins is about 6 mg. per 100 cc. of boiling petroleum ether and considerably less for cold petroleum ether. It is for this reason that we directed in our method that the petroleum ether extract should be cooled at least one-half hour at 20° before filtering. As additional proof that decomposed pyrethrins do not interfere, we have found a slow but gradual decrease of about 30% in the pyrethrin content of ground flowers stored over a period of nearly two years. Obviously this decrease would not occur if the decomposed pyrethrins interfered.

AFTER using our method nearly two years, we have found it necessary to make only a few minor changes, such as using 15 grams of sample instead of 20, and discarding about the first 10 cc. of the blue solution when filtering through the Gooch crucible. This last change was made because in some cases the first part of the filtrate was slightly cloudy, giving the solution a grayish tinge in the colorimeter. When properly filtered the color of the standard and unknown are identical. The sodium hydroxide used in the alkaline copper tartrate solution should be at least 96% pure and the determinations should be made in a water-bath. If an oil-bath is used, low results are sometimes obtained because with some oils the Folin tubes require a considerably longer time to reach 78° than they do in a water-bath.

Of the various biological methods only one is widely used. Tattersfield's method is conducted by spraying 10 adult wingless female black bean aphids, specially reared for the purpose, in a glass cylinder of fixed size using a sprayer so constructed that very fine adjustment of the amount of spray delivered can be obtained. The aphids are placed on a disk of flannel and are sprayed with a suspension made by diluting an alcoholic extract of pyrethrum with .5% saponin solution; constant pressure of 15 pounds is used. The disk with the aphids is then transferred to a petri dish which is covered with gauze and placed in a warm shady place for observation after one to two days.

This method is said to yield reproducible results. Tattersfield¹¹ has compared the kill obtained with his biological method with the pyrethrin content determined by his acid method. Five samples containing from 0.71% to 0.91% total pyrethrins yielded kills so nearly alike that the samples could

not "be separated from each other with any degree of precision"; that is the biological method could not detect a variation of about 28% in pyrethrin content.

THE oil-spray tests in which roaches are used as test insects are made in two ways. A number of adult roaches confined in a suitable cage are sprayed with the oil extract using constant pressure and covering the insect as uniformly as possible. After 24 hours the percentage of kill is calculated. The method is not very accurate. In the second method, the roaches are treated individually with a drop of insecticide and the time required to produce paralysis is noted. The percentage of kill can also be determined if sufficient individual tests are made. One laboratory using roaches for its tests has reported that the pyrethrin content as determined by the copper reduction method, is an index of the toxicity to roaches.

The Peet-Grady method is the biological test most widely used and is, I believe, the most accurate biological method available. Briefly, the method is as follows:

About 100 flies, five days old, are placed in a chamber 6 by 6 by 6 feet in size, whose walls have been rendered non-absorbent with sodium silicate. The temperature of the chamber is kept at 25.6° c. Twelve cc. of pyrethrum-oil spray is introduced through four one-half inch holes near the ceiling, using a special type of atomizer under a constant pressure of 12½ pounds per square inch. At the end of 10 minutes the flies clinging to the ceilings and walls are counted and those which have dropped are carefully placed in wire gauze cages containing bread and milk and cheesecloth saturated with water, and are allowed to stand overnight at 25.6° and about 45% humidity. At the end of 24 hours, the number of disabled flies that have died or recovered is recorded. Unless water is supplied to the disabled flies, nearly all will die regardless of the toxicity of the spray. As soon as the flies have been removed from the test chamber, the walls are carefully wiped and the chamber is ventilated for 20 minutes by means of a blower and fan which draw air through a number of sliding doors in the chamber; it is then ready for another test.

The flies used in the test are carefully bred for the purpose in an insectary, held at constant temperature and humidity, in substantially the manner described by Grady⁵. By this method flies are available the year round. These flies are more resistant than wild flies, and since the age of each culture is definitely known, the vitality of the flies is more uniform. Thus the method of Peet and Grady controls as far as possible, the vitality of the insects, temperature, concentration of spray in the test chamber, pressure at which the spray is applied, time the insects are subjected to the action of the spray and humidity.

Although a great deal of work has been done on this method very few of the results have been published. Peet⁶ has stated that the average variation between tests is approximately 10%. Weed¹⁴, however, reported two series of 16 tests each. The first conducted by releasing the flies after the spray was introduced showed 29.6% variation

with 52.4% kill compared with 41.4% variation with 73.5% kill when the flies were introduced before spraying. The percentage variation based on percentage kill is the same in both cases, that is, 56.5%. In a series of 101 tests conducted by Mr. Grady, in co-operation with the writer, on 24 samples the maximum variations between tests were 23, 10, 14, 13, 28, 16, 27, 29, 28, 19, 6, 12, 13, 18, 12, 10, 12, 11, 1, 6, 12, 9, and 12% or an average of 13.5%. The pyrethrin content of the samples varied from 10 to 150 mg. per 100 cc., and the average kill was 45.3% so that the average of the maximum variations was 29.7% of the average kill. In these tests pyrethrins I and II isolated direct from the flowers, were compared with each other and with four samples of pyrethrum flowers. Curves showing the relation of percent kill to pyrethrin content were plotted from these results. From these curves it can be shown that for kills between 30 and 60%, a difference of 10 mg. of pyrethrins per 100 cc. causes a difference of about 5% in kill. This is equivalent to saying that if a solution is made from flowers containing 1% pyrethrins, a difference of $1\frac{1}{2}$ ounces in the amount of flowers used per gallon (between the limits of 5 and $13\frac{1}{2}$ ounces) will cause a difference of about 5% in kill.

In using the Peet-Grady method for evaluating pyrethrum, the pyrethrin content of the spray should be neither too low nor too high. The percentage of kill is by no means directly proportional to the pyrethrin content. This is especially true when the percentage of kill is above 60%. Serious errors in judging the pyrethrin content of high test flowers can readily be made if the solutions are made with one pound of flowers to the gallon. In order to obtain the best results in comparing samples, the pyrethrin content of the spray should be between 50 and 100 mg. per 100 cc. when the kill will fall between 35 and 60%.

It should be noted that the Peet-Grady method determines only the toxicity to insects. As the insecticidal properties of various organic chemicals are discovered, it will probably be necessary to determine the toxicity of an unknown spray to warm-blooded animals, as well as the toxicity to insects.

In a former paper⁴ we published the results of tests made by the Peet-Grady method on pure pyrethrins I and II, and compared these results with similar tests made on flowers that had been assayed by our method. These biological tests were made by Mr. Grady and showed that the pyrethrin content determined by the copper reduction method indicates the toxicity of the sample. Since these results were published, we have made additional tests which are presented in Table II.

Seven samples of pyrethrum ranging in pyrethrin content from .39 to 1.62% were carefully assayed. Oil extracts of these samples were then prepared using the same oil for all samples. The biological tests on these seven samples were made in our own laboratory. Sample C had the highest pyrethrin content (1.62%) of any sample we have examined. When used in the proportion of 13.3 ounces to the gallon, it gave 80% kill. Sample A containing 1.06% killed 61%, while Sample B of nearly the same pyrethrin content (1.01%) as Sample A, killed almost the same percentage (62%). Sample D having a pyrethrin content of 0.72% gave a kill of 55%. All of these solutions were made with 13.3 ounces of flowers to the gallon. Part of the Sample C solution (13.3 ounces to the gallon) was diluted so that the pyrethrum flower content was 5.9 ounces per gallon; at this concentration, the diluted Sample C would have the same pyrethrin content as the solution made from Sample D, provided the chemical analyses were correct, and the kill should be practically the same as that obtained with Sample D. This was found to be the case, the dilute solution C killing 59% and solution D, 55%. Samples 14, 5, and 16 were used at a concentration of 11.2 ounces to the gallon. In the case of all seven samples, the pyrethrin content determined by our method is an accurate index of the toxicity as determined by the Peet-Grady method. This confirmed the conclusion reached in our work with Mr. Grady.

In Bulletin 198¹³ the Department of Agriculture compared the results of a large number of tests made with eight samples of pyrethrum on aphids with the pyrethrin content of the flowers. For convenience part of these results are given in Table III.

Table III. Relation Between Pyrethrin Content and Toxicity to Aphids. (From U. S. Dept. of Agriculture Tech. Bulletin 198.)

Sample No.	Pyrethrin content of flowers Gnadinger-Corl method	Toxicity to aphids % kill
4	0.71	70
14	0.62	56
6	0.59	69
15	0.41	59
5	0.40	58
10	0.39	45
16	0.39	65
7	0.38	50

Each experiment was conducted with 15 small potted cabbages infested with from 75 to 300 aphids per plant. At least five experiments were made with each sample of pyrethrum. The samples of pyrethrum were first diluted with flour in the proportion of one part of pyrethrum to four parts of flour. The pyrethrum had previously been

Table II. Relation Between Toxicity and Pyrethrin Content of Flowers.

Sample	Pyrethrin content of flowers %*	Ounces of flowers per gal. of oil	Pyrethrin content of oil mg. per 100 cc. made	No. tests	No. of cultures used	No. flies per test avg.	Knock down avg. %	max.	Kill %**	min.	avg.
C	1.62	13.3	162	3	3	111	99	88	72	80	
A	1.06	13.3	106	8	3	119	95	70	54	61	
B	1.01	13.3	101	8	3	113	96	72	55	62	
D	0.72	13.3	72	9	3	112	97	68	46	55	
C	1.62	5.9	72	10	3	109	96	68	46	59	
14	0.65	11.2	53	8	3	119	91	55	36	45	
5	0.40	11.2	34	10	3	113	80	45	22	31	
16	0.39	11.2	33	9	3	108	77	45	20	31	
Oil only .....	....	....	...	5	5	105	..	9	5	6	

*Gnadinger and Corl Method.

**Peet-Grady Method.

Table IV. Relation of Pyrethrin Content to Toxicity of Department of Agriculture Samples.

Sample No.	Pyrethrin* content of flowers %	Ounces of flowers per gal. of oil	Pyrethrin content of oil mg. per 100 cc.	No. tests made	max.	Kill %** min.	avg.
6	0.59	13.4	60	4	46	40	44
13	0.42	16.0	50	4	38	26	30
7	0.36	18.6	50	4	40	30	34

* Gnadinger-Corl method.

** Peet-Grady method.

Table V. Additional Experiments on Department of Agriculture Samples.

Sample No.	Pyrethrin* content of flowers %	Ounces of flowers per gal. of oil	Pyrethrin content of oil mg. per 100 cc.	No. tests made	Kill (Flies) %** max.	min.	avg.	Kill (Aphids) %*** Dept. of Agri. tests
14	0.62	11.2	53	8	55	36	45	56
5	0.40	11.2	34	10	45	22	31	58
16	0.39	11.2	33	9	45	20	31	65

* Gnadinger-Corl method.

** Peet-Grady method.

*** Dept. of Agric. tests Tech. Bulletin 198.

powdered to pass a 70-mesh sieve. The individual plants were "carefully and thoroughly dusted" by a method not described. The percentages of dead aphids were calculated in the usual way at the end of 24 hours. The experiments were started in 1926 and extended over a period of two years. Apparently aphids in all stages of development were used but this is not stated.

PROBABLY the greatest source of error in dusting experiments with powdered pyrethrum is the fact that most of the active principle occurs in the achenes or "seeds" and even when finely powdered a large part of the pyrethrins is not available but is held within the cell walls. With solutions or colloidal suspensions of the pyrethrins, this is not the case and furthermore the liquids can be more uniformly applied than dusts. The effect of this is plainly shown by the fact that Tattersfield obtained kills of 46 to 69% upon specially resistant aphids with aqueous suspensions containing 2 to 3 mg. of pyrethrins I and II per 100 cc., whereas the Department of Agriculture powders containing 78 to 142 mg. of pyrethrins per 100 grams yielded the same percentage kills. In order for the per cent of kill to be a function of the pyrethrin content, it would be necessary for the different samples to be ground to precisely the same degree of fineness. There is no evidence that this was true, in fact, three of these Department of Agriculture samples were subjected to screen analysis in our laboratory with a Rotap sifter by the U. S. P. X. method and showed:

	No. 5	No. 14	No. 16
On 60	6.7%	9.1%	9.9%
80	8.3%	7.7%	3.9%
100	8.8%	9.1%	5.9%
150	15.4%	9.6%	16.8%
200	15.9%	23.1%	14.7%
Thru 200	44.9%	41.4%	48.8%

About 15% does not pass an 80-mesh sieve and microscopic examination shows that this coarse material contains considerable amounts of whole or nearly whole achenes. Good commercial insect powder will pass a 110-mesh sieve and from 60 to 75% will pass a 200-mesh sieve.

It occurred to me that it might be interesting

to compare the activity of the Department of Agriculture samples as determined by the Peet-Grady method with the pyrethrin content determined by our copper reduction method. Three of the Department of Agriculture samples were among those that were tested by Mr. Grady in the work previously referred to. These samples were assayed immediately before the oil solutions were made, and the solutions were kept in the dark except when in use. The results are presented in Table IV.

A similar series was run in our own laboratory on three other Department of Agriculture samples. In this second series instead of varying the weight of flowers per gallon to make the pyrethrin content of the sprays about the same, the weight per gallon was kept constant and the pyrethrin content allowed to vary. These results are given in Table V.

In both series of experiments, it is evident that the pyrethrin content determined by our method is an accurate index of the toxicity as determined by the Peet-Grady method. For convenience, the percentage kills obtained by the Department of Agriculture¹³ on aphids are given also in Table V. Samples 5 and 16 contain practically the same pyrethrin content and gave the same kill by the Peet-Grady method, but the kills obtained by the Department of Agriculture on these two samples were quite different. Sample 14 contained about 50% more pyrethrins than samples 5 and 16, and showed a correspondingly higher kill by the Peet-Grady method, while the Department of Agriculture tests on this sample gave a lower kill than the samples 5 and 16. There is scarcely any doubt but that the Department of Agriculture tests on aphids were not a true index of the toxicity of the samples of pyrethrum used.

THERE are one or two points regarding the application of our method to commercial problems that have been misconstrued¹⁵, which I should like to mention in closing. In our second

(Turn to Page 117)

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Recent Developments in Disinfection

By EMIL KLARMANN*

Chief Chemist, Lehn & Fink, Inc.

THE field of disinfection and antisepsis received considerable attention during 1930. A number of new and promising compounds have been prepared synthetically and some interesting contributions have also been made to our knowledge of the basic processes which represent the various phases of the mechanism of disinfectant action. The following paragraphs contain a digest of some of the more important papers published in the course of the past year; the selection is, of necessity, an arbitrary one and not representative of the total volume of published work on the various subjects having a bearing on the problems of bactericidal action.

Methodological Investigations

AN investigation of the germicidal action upon several pathogenic micro-organisms of certain commercial coal tar disinfectants has been carried out by Philbrick (1). The purpose of this work was to determine the relation between the germicidal effect upon *B. typhosus* (expressed by the "phenol coefficient") and the effect upon other micro-organisms, with several preparations showing different phenol coefficients. It was found that the germicidal action of those disinfectants upon organisms other than *B. typhosus* increases more or less uniformly with the increasing phenol coefficient.

The comparative evaluation of antiseptics for use on the body calls for a consideration of their action not only upon bacteria but also upon the tissue of the host. Lambert and Meyer (2) studied several well known antiseptic preparations by means of the tissue culture method and obtained some rather unexpected results. Thus certain newer antiseptics were found to be considerably more toxic to tissue cells than to bacteria and definitely inferior in this respect to some older antiseptics. The most favorable results were obtained with iodine, mercuric chloride and Neosalvarsan; the latter was found to prevent growth of staphylococci in dilutions of 30-40,000 while causing slight damage to connective tissue, leucocytes or other migratory cells. These findings would seem to require careful consideration and checking by other investigators because of their possible importance.

*Before the Insecticide and Disinfectant Manufacturers' Association, New York, December, 1930.

New Organic Antiseptics (Metal Free)

THE preparation of new alkyl cresol derivatives showing an extraordinary bactericidal potency has been reported by Couthard, Marshall and Pyman (3). While the entrance of alkyl groups into the nuclei of o-, m- and p- cresol generally results in an increase of germicidal action, the maximum effect is reached with the isomers of amyl cresol as evidenced by their phenol coefficients of 250 to 300. At the same time their toxicity is rather low.

New data on the antiseptic and toxic properties of esters of p-hydroxybenzoic acid have been contributed by Schuebel (4). The germicidal effect increases with the increasing molecular weight of the substituting alkyl group from methyl to benzyl. The inhibiting effect of the methyl esters upon the growth of *Staphylococcus* is 1.6 times greater than that of the free acid, while the benzyl ester is 57 times more effective. The corresponding figures for the bactericidal action of the two compounds are 0.7 and 23; compared with phenol they are 2.6 and 83 respectively. The esters are less toxic than, e.g., benzoic acid; they are suitable, therefore, as food preservatives.

Metal Compounds

A CONTRIBUTION to the theory of bactericidal action of metal salts has been made by Leitner (5). The inhibition of the effect by electrolytes does not depend upon the change of the concentration of metal ions, rather it is due to an interference with the absorptive union of bacterium and metal ion. Since the adsorption of the metal ion is a function of the negative charge of bacteria the inhibiting effect of electrolytes should be attributed to a reduction of this charge.

The growth inhibiting action of solutions of metal salts has been studied by Cooper and Nichols (6). Direct inhibition experiments with *B. coli* gave the following concentrations: Mercury acetate 1:300,000, cadmium acetate 1:70,000, lead acetate over 1:5,000. Solutions of colloidal and complex compounds were also studied. Copper and zinc salts are weak inhibitors.

Some discussion took place with reference to the antiseptic properties of Metaphen which emphasizes the necessity of very careful separation of the inhibiting and bactericidal effects of compounds of this type (7).

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Organic Dyes

THE paper by Stearn (8) is interesting from a theoretical viewpoint. It represents a further extension of the ideas on the mechanism of bacteriostatic action, based on the amphoteric character of bacteria. It is assumed that the bacteriostatic action will be high if the dye cation forms a slightly dissociated compound with a component of the bacterial cell, while it will be slight if this combination is highly dissociated.

From the series of anilquinoline derivatives previously studied, Armitage, Cohen, Ellingworth and Dobson (9) selected one for a more detailed investigation whose antiseptic action surpasses that of the very potent acriflavine 2 to 3½ times.

While it is possible to raise the resistance of bacteria to the inhibiting concentration of malachite green, this treatment does not necessarily increase the resistance to the germicidal concentration according to Kappus (10). Thus, it is quite feasible to produce strains of *B. coli* which withstand thousand times the concentration of malachite green that would inhibit the growth of the original strain. Nevertheless these strains are killed by almost the same dye concentration which is required to kill the original untreated strains.

Thiocyanates

FREE thiocyanic acid is many times more effective as a germicide than hydrochloric acid. The germicidal effect is not the additive result of the H-ion and the CNS-ion, but seems to be caused by a mutual catalytic activation of the two ions. The paper by Lockemann and Ulrich (11) contains some very interesting data on the germicidal effect of thiocyanates in the presence of inorganic and organic acids. Thus as little as 0.001% of sodium thiocyanate added to hydrochloric acid increases its efficacy 4 to 16 times toward *B. coli*. Anthrax and soil spores are more susceptible to the action of thiocyanic acid than to that of any other acids.

Hydrogen Peroxide

THE modified Hygienic Laboratory method was used by Dittmar, Baldwin and Miller (12) for the determination of the germicidal action of hydrogen peroxide upon *Staphylococcus* and *B. coli*. Addition of oxidation catalysts was found to raise the bactericidal potency very considerably. The catalysts used were the sulfates of copper, iron, cobalt and manganese, and potassium dichromate. As an example it may be mentioned that the phenol coefficient of peroxide determined with *B. coli* is 0.012 while the addition of 0.1 millimol of ferric and cupric sulfates raises it to 1.4, i.e., more than one hundred times.

Radiation

THE germicidal effect of cathode rays was studied by Wyckoff and Rivers (13). It was found that the absorption of a single electron is sufficient to cause death of a single colon germ. Ehrismann (14) reports that the bactericidal action of strictly monochromatic ultra-violet light increases rapidly with decreasing wave length, showing thereby a characteristic difference from other biological effects such as erythema and pigmentation. Experiments on the germicidal action upon *B. coli* of X-rays were carried out by Wyckoff (15).

References

1. Philbrick, Ind. Eng. Chem. 22, 618 (1930)
2. Lambert and Meyer, Biol Abstr. 4, 3, 853 (1930).
3. Coulthard, Marshall and Pyman, J. Chem. Soc. 1930, 280.
4. Schuebel, Ber. ges. Physiol. expt. Pharmakol. 55, 830 (1930). Sabalitschka, Arch. Pharm. 267, 675 (1930).
5. Leitner, Bioch. Z. 221, 42 (1930).
6. Cooper and Nicholas, J. Soc. Chem. Ind. 49, 386 (1930).
7. White and Hill, J. A. M. A. 95, 27 (1930). Raiziss, Severac and Moetsch, J. A. M. A. 94, 1199 (1930).
8. Stearn, J. Bacteriol. 19, 133 (1930).
9. Armitage, Cohen, Ellingworth and Dobson, Lancet 1929 II 968 (1930).
10. Kappus, Z. Hyg. Infektionskrankh. 111, 104 (1930).
11. Lockemann and Ulrich, Z. Hyg. u. Infektionskrankh. 111, 387 (1930).
12. Dittmar, Baldwin and Miller, J. Bacteriol. 19, 203 (1930).
13. Wyckoff and Rivers, J. Exptl. Med. 51, 921 (1930).
14. Ehrismann, Z. Hyg. Infektionskrankh. 111, 618 (1930).
15. Wyckoff, J. Exptl. Med. 52, 769 (1930).

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Rotenone, one of the insecticidal constituents of derris root, has been shown by the scientists of the U. S. Department of Agriculture to be suitable for mothproofing fabrics. In the experimental demonstrations solutions containing 1 per cent to 2 per cent of rotenone dissolved in acetone were used. *Jour. Econ. Entomol.* 23, 101 (1930).

—o—

Edward E. Demby, of the Sanico Chemical Corp., New York, was married last month to Miss Ethel E. Kottler, of Brooklyn, N. Y. Mr. and Mrs. Demby spent the month of December in Bermuda and are now residing in Brooklyn.

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Evaluation of Pyrethrum

By JOHN GLASSFORD*

Chief Chemist, McCormick & Co.

IT was the two Swiss chemists, Staudinger and Ruzicka, who first established a sound basis for future work by isolating and determining the chemical structure of the two toxic constituents of pyrethrum to which they gave the names Pyrethrin I and Pyrethrin II. They stated that these constituents are present in the pyrethrum flowers to the extent of 0.2 to 0.3 percent and that they consist of approximately 40 percent of Pyrethrin I and 60 percent of Pyrethrin II. (*Helvetica Chim. Acts* 7:177-201.)

Staudinger and Harder later published methods of analysis based on the determination of the chrysanthemum monocarboxylic acid in Pyrethrin I and the chrysanthemum dicarboxylic acid methyl ester present in Pyrethrin II. By their methods, Staudinger and Harder found as much as 0.6 percent total pyrethrins in some specimens of pyrethrum flowers. (*Ann. Acad. Sci. Fennicae* v. 29, No. 18.)

Tattersfield, Hobson and Gimmingham, the English chemists have developed a modification of Staudinger and Harder's method using microchemical methods employing much smaller amounts of flowers. They find from 0.6 to 1.2 percent total pyrethrins, made up of approximately equal amounts of Pyrethrin I and Pyrethrin II. (*Jour. Agr. Sci.* 19 (pt. 2); p. 266.)

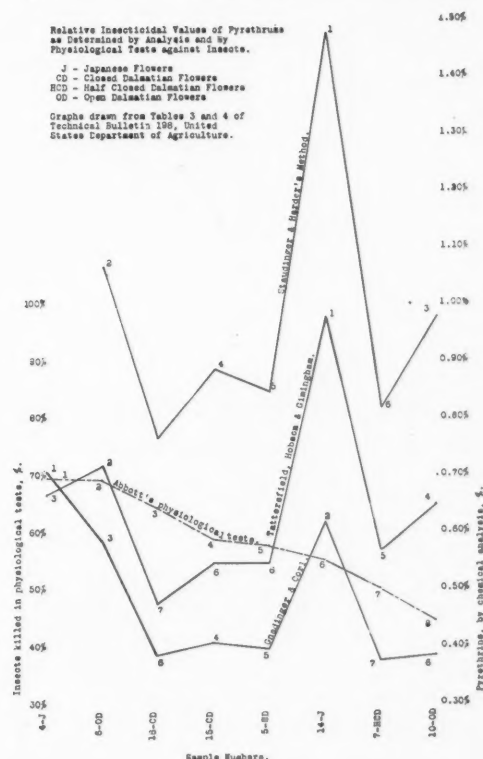
The latest method that has been developed for the determination of the active constituents of pyrethrum is that of Gnadinger and Corl. (*Jour. Amer. Chem. Soc.* 51; 3054-3064.) This method is based on the reduction of an alkaline copper solution by the ketone alcohol, pyrethrolen, which is present in both pyrethrins. Gnadinger and Corl found from 0.40 to 1.21 percent total pyrethrins in samples of pyrethrum flowers and powders which they tested by their method.

The above has all been previously reported. No new methods of analysis have since been developed. The most important contribution to the subject that has come out this year is the publication in July of the bulletin of the United States Department of Agriculture, "Relative Insecticidal Value of Commercial Grades of Pyrethrum," by McDonnell, Abbott, Davidson, Keenan and Nelson. (Technical Bulletin No. 198, U. S. Dept. of Agr., July, 1930.)

*Report of Committee on Chemical Evaluation of Pyrethrum, made by Chairman Glassford before Insecticide & Disinfectant Manufacturers' Association, New York, December, 1930.

These experimenters have, among other work, analyzed eight samples of commercial pyrethrum flowers and then tested them physiologically against insects. They have published the

Chart to accompany Report of Committee on The Chemical Evaluation of Pyrethrums
Flowers, Insecticide & Disinfectant Manufacturers Association, December 9, 1930.



results obtained in tables 3 and 4 of their bulletin and I have plotted them on the diagram which we have on the blackboard before us. The determinations shown on the line marked Gnadinger & Corl are by these chemists and so stated in the bulletin. The others are by Nelson of the Bureau of Chemistry and Soils. From the variations shown on the same samples by the different methods of analysis followed, it is evident that much work remains to be done in accounting for these differences and bringing results into agreement. Let us look at sample No. 14-D, for instance. Gnadinger and Corl's method yields 0.62%, Tattersfield, Hobson & Gimmingham's method, 0.98%, while Staudinger & Harder's method yields 1.48%. It is to be observed, however, that the graphs are, in a rough way, parallel.

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Tattersfield's method yielding about $1\frac{1}{2}$ times as much pyrethrin as Gnadinger's and Staudinger's method $2\frac{1}{2}$ times as much. The disagreement between Tattersfield's and Staudinger's method is more remarkable than that between Gnadinger's and the others because Staudinger and Tattersfield both determine the acid constituents of the pyrethrins, the one simply being a modification of the other; whereas Gnadinger follows an entirely different plan and determines the ketone alcohol common to both pyrethrins. The rough parallelism in the graph would indicate that the discrepancies are not due to personal equation in the analysis, but rather to faults in the method followed. There must be some detail in the prescribed analytical procedure in at least two of the methods which yields erroneous results, because pyrethrin, calculated from either the acid or the alcoholic constituent of the molecule, ought to be identical in quantity. It is true that all three methods of analysis are complicated, delicate, and require considerable skill in manipulation. However, there are other complicated and delicate methods of analysis in common use and yielding accurate and concordant results.

As previously stated, this bulletin includes a report on physiological tests of the pyrethrums analyzed. As physiological tests of killing power against insects is the final court of decision in evaluating pyrethrum, I have used the results obtained by this method in determining the order in which the samples are shown. As you will observe they are arranged in a descending curve, beginning with the sample 4-J, having the highest insecticidal value and running down to sample 10-OD, having the lowest. This is the curve marked "Abbott." The first thing that strikes the eye in comparing the analytical with the physiological curves is that there is very little agreement discernable. Let us look at sample No. 14-J, for instance. Staudinger and Tattersfield's methods of analysis both show it to be by far the best of all the pyrethrums tested. Gnadinger's method shows, it to be the second best, but Abbott's physiological test shows it to be sixth on the list.

Several explanations of these discrepancies seem possible. One is, that the discrepancies are due to the difference in the toxicity of the two pyrethrins. Tattersfield, Hobson and Gimingham have stated that Pyrethrin I is ten times as toxic as Pyrethrin II; Staudinger and Gnadinger, however, find the two pyrethrins to be about equal, Pyrethrin I being slightly more active than the other. Assuming that Tattersfield is right and giving Pyrethrin II found in analyses by their method only $1/10$ the toxicity of Pyrethrin I, a curve more or less parallel with Abbott's physiological curve should be obtained, but it is not.

Possibly the relative toxicity of the two pyrethrins varies with different insects, but both Tattersfield and Abbot used aphids, and, unless Tattersfield would claim that they were different kinds of aphids, this explanation of the discrepancies fails.

A more logical explanation of the discrepancies between the chemical analyses and the physiological tests is that all chemical methods thus far proposed have determined only a constituent of the pyrethrin molecule. Staudinger and Tattersfield both determine chrysanthemum carboxylic acids, while Gnadinger determines the ketone alcohol, pyrethrolon. Now the pyrethrins are esters, and like many other esters are easily hydrolysed, i.e., split up into their constituents, alcohols and acids by water. When thus decomposed, the pyrethrins are inert as insecticides, but there is still present in the decomposition product just as much of the carboxylic acids and the ketone alcohol as in the original pyrethrins. They therefore indicate just as high a pyrethrin content by analysis as if they were present in the combined active state. If this explanation be true, the high analyses yielded by sample 14-J by all three methods indicate that this pyrethrin was once a very good one, but had lost much of its insecticidal value, perhaps due to improper storing. Also, if this explanation be correct, it will place all methods of analysis in which only a constituent of the pyrethrins is determined in the same class with the method of evaluation of pyrethrum based upon its oleoresin content. As is well known, a very low in oleoresin content, does indicate poor pyrethrum. On the other hand, a high oleoresin content does not necessarily indicate a good pyrethrin. Similarly a low content of the ketone alcohol or carboxylic acids of the pyrethrins indicate a poor pyrethrum, but high analyses of these constituents would not necessarily indicate a good pyrethrum. Another possible objection to the Gnadinger method of analysis is that it depends upon a property of the ketone alcohol in pyrethrin which is common to a large class of organic substances, namely copper reducing power. It is not impossible that a similar reducing substance soluble in petroleum ether might be added to pyrethrum flowers by an unscrupulous dealer for the purpose of fraudulently increasing the apparent pyrethrin content of his goods.

Your committee does not yet recommend for general use any of the methods of analysis so far proposed. Maybe one or all of them can be modified to yield satisfactory results, but such results must be in accordance with the physiological tests which have long been used in which still must remain the ultimate test of pyrethrum, if not in the hands of the chemist, yet surely in the hands of the public who is going to use it.

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By ALFRED WEED *

Entomologist, John Powell & Co.

note **A**S a manufacturer of liquid household insecticides, you have doubtless frequently been confronted with the statement that your product was ineffective. If you have investigated these complaints, very probably you have found that in a vast majority of cases the difficulty lay not in the quality of your insecticide, but in the individuals who were using it. Although in some instances the manufacturers may be partially at fault for failure to give definite and explicit directions covering the use of these fly sprays, the consuming public in general evince a total disregard for such directions as are given.

All of us who manufacture products of this type know that a satisfactorily prepared fly spray, containing sufficient pyrethrum and a suitable oil vehicle is an excellent insecticide, but the material is worthless unless it is employed correctly. That the proper application of liquid household insecticides is not clearly understood by women of the public was very forcefully demonstrated in a series of tests which were conducted at *Good Housekeeping Institute*.

Because of our interest in securing information of value to the industry, these tests were initiated primarily with the intention of securing data both on the familiarity which American women had with these products and their use, and comparative figures as to the quantity of liquid utilized in spraying for an infestation of flies. Recommendations concerning this latter point are numerous indeed, but are difficult of interpretations, and lacking in specificity. A failure on the part of the consumer to use a sufficient quantity of material to secure good results, though accompanying instructions are followed in a limited way, invariably result in a criticism of the product and incites a skeptical attitude toward all similar materials. It, therefore, becomes a duty of the thoughtful manufacturer to remedy this situation in so far as it is possible.

FOR these tests six nationally known insecticides were selected, these being used in rotation. The amount of spray liquid atomized was

*Before Insecticide & Disinfectant Manufacturers Association, New York.

carefully measured as were also the number of strokes made with the hand sprayers. It can be stated definitely that this latter criterion, which has been used in explanation of the proper amount of material to employ, is of little consequence. Information was also collected as regards the individual's reaction towards the product, and a brief questionnaire containing questions pertaining to household insecticides was used to supplement this data.

The room in which the tests were conducted was equipped as a laundry, with cabinet, set tub, washing machine, table, and laundry stove, as the furniture. The room measured ten by twelve and had an eight and a half foot ceiling containing approximately one thousand cubic feet. The women selected for the tests were considerably above average intelligence, many of them being college graduates and professionally trained, former students in leading colleges of domestic science, as well as office workers and housewives. The women were brought into the room in which, prior to their entrance, live flies were liberated. If they had had previous experience with household sprays they were simply asked to use the materials just as they did in their own homes; if they were unfamiliar with such products, they were given a resumé of the ordinary directions which are prescribed for the use of these materials, and asked to proceed.

The results of the survey were most interesting, although extremely variable. They did, however, offer substantial support for our assumed premise; that one of the major obstacles which the manufacturer has to overcome is that of the public's ignorance in using liquid household insecticides.

IT was found that in the homes of eighty-five percent of these women, insecticides were employed, either in the liquid or powdered form, or as repellents. Although such preparations were not used periodically or even frequently in a majority of instances, recourse was had to such preparations when the occasion demanded. The frequency of application varied from once a week to twice a year with fourteen percent of the



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women included in the survey reporting the use of an insecticide daily during the summer months; fifteen percent used them once a month, and twenty-two percent only when bothered by insect pests.

The average amount of spray used was 12.24 cc's with a minimum atomization of one cc. and a maximum of sixty-one cc's. One-half ounce or more material was used by thirty-one percent of the women, while eighteen percent used three-quarters of an ounce, and less than six percent of them employed the equivalent of one ounce or more. Basing requirements upon the directions accompanying the products and from our own experience with similar Pyrethrum extracts, but a very low percentage of the women would have secured results which might be considered as satisfactory.

Laboratory experiments conducted with these products demonstrated that an ounce of material was not sufficient to secure a high percentage of kill on flies based upon the method developed by Peet and Grady, but it is quite probable that induced mortality should not alone be considered as the basis of effectiveness. This may warrant further consideration, but unquestionably a product which possesses sufficient toxicity to drop flies and keep them inactive for a few hours, at least long enough for their removal and destruction, may be considered as excellent by many people. Thirty-five percent of the women in the survey ran the flies down and endeavored to spray them individually.

IN the course of the survey there were three subjects which came to our attention which are pertinent to the manufacturer, as they have a bearing on all liquid household insecticides. Although objections were raised by many of the women because they considered these products not sufficiently effective, a majority cited the matter of odor, staining of fabrics, and the fact that they were messy. Seventy percent stated that they would use products of this type more frequently if they could be assured of good results, and seventy-nine percent favored liquid products, largely because they were easy to use and left nothing unsightly.

It was difficult to secure data on the desirability of the perfumes in the products used, but the women appeared to be about equally divided on each insecticide. Eighty-nine percent stated a preference for an odorless spray, but few objected strenuously to the material they used in the test, and it so happened that in a majority of instances in which an objection was raised over the odor of an insecticide, it was found that they were using the same product in their home.

It was interesting to note that a few conceded the fact that an odor possessed a certain psychological effect upon the housewife and they assumed that if the odor were strong or disagreeable it would, of course, not be relished by the insects themselves.

INFORMATION collected on the questionnaire relative to insect pests showed that there still exists an abhorrence of the bedbug. Only one woman cited it as the most troublesome insect encountered in her home and she further stated that if others in the survey had been honest, it would have been given its due. The housefly was selected as the most troublesome, the moth and the mosquito followed and the roach was placed fourth. A majority of the women were familiar with all of the common household insects, but shunned mention or reference to the bedbug. They were very militant toward the injury caused by moths, and queries were numerous for an economical control measure for it. Insects were considered a menace to health and many of the women objected to seeing them about the house, although a few were willing to tolerate some insects without any feeling of repulsion.

The results of the survey, which have been passed over very briefly, show very conclusively that insecticides of this type are associated in the mind of the public with insect control. An individual can travel in but few places today without confronting impressionable posters, carrying these associations. Display windows in every community feature these preparations seasonally. The public is informed.

Ninety percent of these women stated that they believed an educational campaign in the control of household insects would be of real value to the general public. This clearly points to the necessity of a new method of presentation of these products. As a manufacturer of liquid household insecticides, what have you told the public about your preparations? Why not educate them in its proper use?

—o—

A recent German Patent claims the process of protecting wool, pelts, and the like from moths by a solution of boron fluoride alone or with a solution of its reaction product with organic substances in organic solution. Examples mention boron fluoride with acetophenone, anisole, acetoacetic ester, acetone, malonic ester and butyl alcohol. *Ger. Pat. No. 502,600.*

—o—

Hercules Powder Co., Wilmington, built up a remarkable safety record during the month of November by operating its twenty units, employing 2,805 workers, without a single lost time injury.



Quality Products for
SOAPS and DISINFECTANTS
 AMMONIA LIQUOR SOLVENT NAPHTHA
 CRESOLS
 U. S. P. and Special Grades
 CRESYLIC ACID
 95% and 97 - 99%
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"EVERGREEN" PERFUMES
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"EVERGREEN" concentrated oils for cake soaps, liquid soaps, theatre sprays, insecticides, para and related sanitary products are backed by 31 years of compounding experience. Besides having a complete array of standard oils for this type of perfuming we are equipped to work out specialties designed for your particular use. May we be of service to you?

EVERGREEN CHEMICAL CO., INC.

160 FIFTH AVENUE

NEW YORK

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Opportunities for Export

The following opportunities for export of American soaps and allied products have come to the Bureau of Foreign and Domestic Commerce, Washington, D. C. American manufacturers can secure the full details of the inquiries by communicating with the Bureau, care of the Department of Commerce. Be sure to mention the number of Foreign Trade Opportunity in writing.

48,886 Laundry soap, other soaps and toilet preparations, El Salvador, agency.

48,899 White naphtha soap in cakes, Belgium, purchase.

48,934 Insecticides, Peru, agency.

48,939 Toilet preparations, Canada, agency.

49,023 Toilet preparations, China, purchase.

49,038 Toilet preparations, Italy, agency.

49,039 Dentrifices, Italy, agency.

49,145 Toilet preparations, Denmark, agency.

49,182 Insecticides and toilet preparations, Porto Rico, agency.

49,287 Toilet preparations, England, purchase.

49,388 Toilet preparations, Canada, agency.

49,414 Toilet preparations, Egypt, agency.

49,425 Toilet preparations, Netherlands, agency or purchase.

—o—

In the use of soap solutions as contact insecticides against the Japanese beetle, it is said that the soaps which form the toughest and most adherent films give the highest insect kill, those which form less tenacious and weaker films give a lower kill, while absence of film formation corresponds to absence of kill. The potash soap of palm oil is typical of suitable soaps for this purpose, giving 70% kill. *Jour. Econ. Entomol.* 23,1011-12 (1930).

—o—

Interstate Chemical Manufacturing Co. has been formed by a group who have purchased the assets of the Interstate Chemical Co., which recently went into receivership. William H. Rose, H. B. Van Cleve and Clarence Miller are associated in the new concern which will continue the manufacture of insecticides.

—o—

Dr. Alfred Weed, entomologist of John Powell & Co., New York, delivered a paper January 3rd before the American Association of Economic Entomologists at their annual convention at Cleveland on "Problems in the Manufacture of Liquid Household Insecticides of the Petroleum Extract or Pyrethrum Type."

—o—

The freight rate on coal tar has been reduced 1½c. per cwt. on carload tankcar shipments from Black Rock, Buffalo, Depew, East Buffalo and Lancaster to Niagara Falls by New York State Public Service Commission, bringing the rate down to 6c. a hundred.

—o—

Hercules Powder Co., New York, recently announced new prices on Yarmor steam-distilled pine oil at 61c. a gallon in 50 gallon drums and 64c. a gallon in 30 gallon drums.

Insecticide Course at Purdue

The study of entomology and the control of household, livestock, and agricultural pests will become part of the course given to pharmacy students at Purdue University School of Agriculture, Lafayette, Ind. The following letter was received by Secretary Harry W. Cole of the Insecticide & Disinfectant Manufacturers Association, and has been passed along for publication here by him.

"At the request of the dean of the Purdue School of Pharmacy, we are planning to give a course in entomology for pharmacy students, which I believe is the first time such a course has been given to pharmacy students. The course will include the principles of insect life as they relate to controls, an understanding of the common garden, field crops, orchard and shade tree insect pests as well as household and livestock pests and the important chemical insecticides and the commercial insecticides on the market.

"It is highly desirable that we have all of the trade name insecticides to use in this course and I am writing you, first for suggestions to increase the value of such a course, second for labels from all your insecticide preparations, third for samples of your products which will be used only for the instructional work and fourth for any information you may care to give relative to the active chemical or ingredients in your preparations. I feel that it is a benefit to the commercial insecticide manufacturer for distributors to know the active ingredients in insecticides and I can assure you that any information you give along this line will be used in such a way as to be of value to any manufacturer of reliable insecticides."

The letter was signed by J. J. Davis of the Department of Entomology, Purdue University, Lafayette, Ind. Manufacturers who are interested in sending samples and data on insecticides, cattle dips and sprays, disinfectants, etc., can communicate direct with Mr. Davis.

—o—

An important market for coal-tar preparations for sanitary purposes exists in British Malaya. Most of the disinfectants are now supplied by Great Britain. The principal requirements of the Chinese dealers are that the material should produce a milk-white solution and possess a strong creosote odor. *They have evidently found such*

—o—

S. A. Everett, of Everett & Barron, Providence, R. I., was elected president of the Shoe Polish Manufacturers' Association of America at a recent meeting in New York. Other officers chosen were: Robert L. Aste, Griffin Manufacturing Co., New York, vice-president; and Thomas F. Anderson, Boston, secretary-treasurer.

TAR ACID OIL

20% 25% 30% 36%

Naphthalene Free--White Emulsion

SPECIAL OILS

for making DISINFECTANTS complying in
BENZOPHENOL CONTENT

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LETHANE 384

The EFFECTIVENESS of an insecticide
is its most important characteristic.
LETHANE 384 is highly toxic to flies,
roaches and other pests but abso-
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Say you saw it in SOAP!

Evaluating Pyrethrum—Gnadinger (From Page 101)

paper² on the relation between maturity and pyrethrin content, we concluded that the latter increases as the flowers mature. This conclusion was based on analysis of flowers taken from the same plants at different stages of growth. We also found that in a given lot of flowers, the open flowers have a higher pyrethrin content than the closed flowers. This is of course quite different from stating that all lots of open flowers are higher in pyrethrins than all lots of closed flowers. As a matter of fact, we presented in our paper analyses of a number of samples of closed flowers having higher pyrethrin content than other samples of open flowers. It is true, however, that the pyrethrin content of any lot of closed flowers would have been higher if the flowers had been allowed to mature.

Similarly, our conclusion on the relative value of Japanese and Dalmatian flowers has been misinterpreted¹⁵. Our statement that Japanese flowers contain about twice the pyrethrin content of Dalmatian flowers was based on the analysis of twenty-seven samples of Dalmatian and twenty-one samples of Japanese flowers. Several of the Dalmatian samples reported contained the same amounts of pyrethrins as some of the Japanese. It is plainly stated in the paper that the Japanese flowers *averaged* twice the pyrethrin content of the Dalmatian flowers. Since our papers were published, we have examined dozens of lots of Japanese flowers, none of which has run as low as the Dalmatian flowers originally reported. The pyrethrin content of the Japanese flowers has varied from 0.58% to 1.62%. It should be remembered that some of the so-called Dalmatian flowers are grown in various parts of Europe. Recently a Government Experiment Station in Europe reported to us a locally-grown lot testing 1.64% pyrethrins by our method. These were not however Dalmatian flowers.

¹ Gnadinger & Corl, Jour. Amer. Chem. Soc. 51, 3054-64 (1929).

² Gnadinger & Corl, Jour. Amer. Chem. Soc. 52, 680 (1930).

³ Gnadinger & Corl, Jour. Amer. Chem. Soc. 52, 684 (1930).

⁴ Gnadinger & Corl, Jour. Amer. Chem. Soc. 52, 3300 (1930).

⁵ Grady, Jour. Econ. Entomol. 21, 598, (1928).

⁶ Peet, Soap p. 111, June (1930).

⁷ Peet & Grady, Jour. Econ. Entomol. 21, 612, (1928).

⁸ Staudinger & Harder, Ann. Acad. Sci. Fennicae 29a No. 18 (1927).

⁹ Studinger & Ruzicka, Helv. Chem. Acta. 7, 177, 259, 377-458 (1924).

¹⁰ Tattersfield & Hobson, Jour. Agri. Sci. 19, 433-437 (1929).

¹¹ Tattersfield, Hobson, and Gimingham, Jour. Agri. Sci. 19, 266-296 (1929).

¹² Tattersfield & Morris, Bulletin Entomology. Res. 14, 223 (1924).

¹³ U. S. Department of Agriculture, Tech. Bulletin No. 198 (1930).

¹⁴ Weed, Soap, p. 109, July (1930).

¹⁵ Weed, Soap, p. 117, May (1930).

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in the development of quality soaps, oils and allied products, we take pride in their enviable reputation for high quality, constant uniformity and absolute dependability.

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LIQUID SHAMPOO BASE

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12. **Rezinol 1**—For making adhesive tapes, fly-paper and other sticky products.
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Trade Marks Granted*(From Page 55)*

Co., Chicago. Filed July 7, 1930. Serial No. 303,161. Published Sept. 9, 1930. Class 6.

278,143. Automobile Liquid Polish. William Muesse, Bronx, N. Y. Filed Aug. 7, 1930. Serial No. 304,339. Published Sept. 30, 1930. Class 16.

278,151. Automobile and Furniture Polish. Northwestern Chemical Co., Marietta, Ohio. Filed July 14, 1930. Serial No. 303,485. Published Sept. 23, 1930. Class 16.

278,157. Polish for Automobiles. C. Little Mfg. Co., Detroit. Filed July 7, 1930. Serial No. 303,194. Published Sept. 16, 1930. Class 4.

278,182. Liquid Cleaning and Washing Compound. Suintex Chemical Co., Philadelphia. Filed July 16, 1930. Serial No. 303,556. Published Sept. 23, 1930. Class 4.

278,183. Soap Flakes. Mitchell Wing Co., Cambridge, Mass. Filed July 31, 1930. Serial No. 304,060. Published September 23, 1930. Class 4.

278,184. Shoe Dressing and Polish. Henderson Bros. Corp., Johnstown, Pa. Filed July 30, 1930. Serial No. 304,008. Published Sept. 16, 1930. Class 4.

278,186. Shaving Cream. Whisko Co., Indianapolis. Filed July 19, 1930. Serial No. 303,673. Published Sept. 16, 1930. Class 4.

278,187. Soap Powder. Minnesota Chemical

Co., St. Paul. Filed July 18, 1930. Serial No. 303,608. Published Sept. 16, 1930. Class 4.

278,189. Shaving Cream. Sears, Roebuck and Co., Chicago. Filed May 31, 1930. Serial No. 302,042. Published Sept. 16, 1930. Class 4.

278,194. Polishing Preparation. W. P. Fuller & Co., San Francisco. Filed June 22, 1929. Serial No. 285,970. Published Sept. 16, 1930. Class 16.

278,198. Liquid Soaps. W. H. & F. Jordan, Jr., Mfg. Co., Philadelphia. Filed May 8, 1930. Serial No. 300,132. Published Sept. 16, 1930. Class 4.

278,212. Liquid Wax. Miracul Wax Co., St. Louis. Filed Jan. 29, 1930. Serial No. 295,345. Published Sept. 23, 1930. Class 16.

278,246. General Cleaning Preparation. Tropical Paint and Oil Company, Cleveland. Filed Feb. 7, 1930. Serial No. 295,767. Published Sept. 16, 1930. Class 4.

278,331. Silver Polish and Shaving Cream. Independent Druggists' Alliance Distributing Co., Chicago. Filed July 28, 1930. Serial No. 303,890. Published Oct. 7, 1930. Class 4.

278,332. Laundry Soap. Di Santo & Co., Duluth, Minn. Filed July 26, 1930. Serial No. 303,842. Published Sept. 30, 1930. Class 4.

278,333. Shaving Cream and Soap. Iliff Jones Co., Pittsburgh. Filed July 23, 1930. Serial No. 303,748. Published Oct. 7, 1930. Class 4.

278,335. Liquid Soap. Francis J. Flood, Corona,

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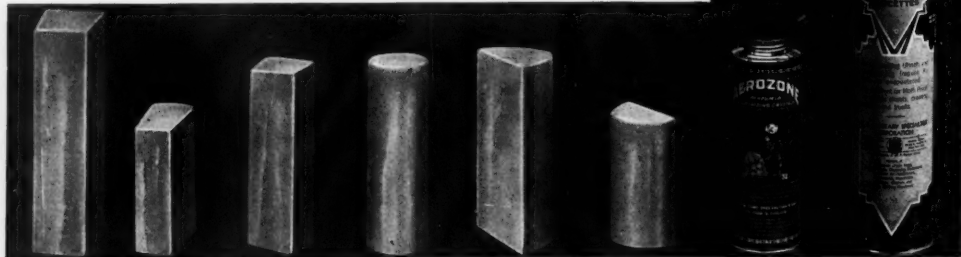
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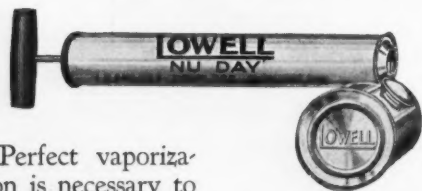
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The housewife demands a sprayer that will not leak, drip, nor syphon, is neat in appearance and easy to use.

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Tank. 3 inches diameter, 3 inches long. Heavy tin. Capacity about one pint. $\frac{3}{4}$ inch can screw for filling. Double tested.

Pump. $1\frac{1}{2}$ inches diameter, 10 inches long. Fitted with special leather and heavy plunger rod.

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N. Y. Filed July 19, 1930. Serial No. 303,638. Published Sept. 30, 1930. Class 4.

278,388. Cleaning Compound. J. B. Ford Co., Wyandotte, Mich. Filed Jan. 22, 1930. Serial No. 295,071. Published Sept. 30, 1930. Class 4.

278,402. Shampooing Preparation. D. Watson & Co., New York. Filed July 28, 1930. Serial No. 303,888. Published Oct. 7, 1930. Class 6.

278,418. Shampoo Powder. Colgate-Palmolive-Peet Co., Chicago. Filed July 7, 1930. Serial No. 303,160. Published Sept. 16, 1930. Class 6.

278,421. Liquid Shampoo. Blanche Cervelli, San Francisco. Filed May 27, 1930. Serial No. 301,333. Published Sept. 30, 1930. Class 6.

278,424. Tooth Paste. Joseph Zuckerman, Cal-exico, Cal. Filed Aug. 9, 1930. Serial No. 304,443. Published Sept. 23, 1930. Class 6.

278,455. Waterless Cleanser. Dix Products Company, Cincinnati. Filed Aug. 9, 1929. Serial No. 288,356. Published Oct. 7, 1930. Class 4.

278,574. Polishes. W. W. Culbertson & Son, Kansas City, Kan. Filed April 7, 1930. Serial No. 298,921. Published Oct. 7, 1930. Class 16.

278,775. Antiseptics, Disinfectants and Deodorants. G. R. Powell Chemical Co., Cleveland. Filed Aug. 9, 1930. Serial No. 304,426. Published Oct. 7, 1930. Class 6.

278,875. Spray Guns. Sinclair Refining Co., New York. Filed April 25, 1930. Serial No. 299,466. Published June 10, 1930. Class 23.

Japan is said to produce seventy per cent of the world's yield of pyrethrum from Hokkaido. In 1928, it ranked twenty-sixth among the principal exports of Japan. In 1925 and 1926, there was an over-production of about 5,000,000 pounds, which resulted in restricted production in 1927, and in 1928 the export figures exceeded the production for that year. The chief customer is the United States. An article in the Bulletin of the Imperial Institute, London, October, 1930, describes the Dalmatian (white) species and the Persian (red) species, the respective insecticidal constituents, uses, cultivation, picking, drying, packing, inspection, output, cost of production, trade conditions, export movement, quotations, future prospects, and comparative prices of pyrethrum.

The total annual consumption of antiseptics and disinfectants in China is estimated to be 250,000 gallons which includes both imported and native-made disinfectants, the latter comprising eighty per cent of the total.

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Hand and continuous sprayers, designed and manufactured to give the greatest value for the least outlay.

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Soap Maker or superintendent, conscientious and dependable with well founded thorough experience in manufacturing all grades and kinds of laundry, toilet, industrial potash soft, liquid soaps and soap products, shampoos, disinfectants, sprays, etc. Desires steady position. Address Box No. 616, care *Soap*.

Soap Maker—German with over twenty years' experience in Germany and South America. Special toilet and laundry soaps. Handle all repairs on boilers, machines, pipes, etc. Address Box 615, care *Soap*.

Practical Soap Maker wants position making all grades of rosin laundry soap, cold made and half boiled, all grades of potash and liquid soaps and shampoos, also flaked, shredded and powdered soap. Can also make floating soaps, toilet soap base, milled soaps and old style soaps. Glycerine extraction from spent lyes. Address Box 617, care *Soap*.

Chemist—Man with fifteen years' experience in

USED MACHINERY

COMPLETELY
GUARANTEED
REBUILT

PARTIAL LISTINGS

- 1—Proctor and Schwartz Soap Chip Dryer, with 5-roll mill.
- 1—H. A. Soap Cutter, motor driven.
- 6—Vertical Crutchers, 3600, 3000, 1500, 1200 lb. capacity, Dopp, Houchin-Aiken.
- 1—H. A. 5-roll Steel Soap Mill, 14" x 36".
- 2—H. A. Granite 3-roll Mills, 12" x 24".
- 1—H. A. Jumbo Plodder, 8", with motor.
- 1—Rutchman twin screw Plodder, 6".
- 2—Jones A Automatic Soap Presses.
- 1—Ralston Automatic Soap Press.
- 1—Hercules Foot Press.
- 20—Filter Presses, 12" x 12" to 36" x 36".
- 5—Soap Chippers, 18", 22", 24", and 30".
- 2—Blanchard 10-A and 14-A Mills.
- 1—Huber hand operated Slabber, 1200 lb.
- 200—Soap Frames, 1500 lb., 1200 lb.
- 3—World and Ermold Labelers, motor.

DOPP KETTLES !!

42 JACKETED AGITATED 50, 80, 150, 200 gallons, with ribbon, bridge and double motion agitators. Send for complete list.

MISCELLANEOUS — Jacketed Kettles, Tanks, Mixers, Fillers, Pumps, etc.

Send for latest Soap List

CONSOLIDATED PRODUCTS COMPANY, Inc.

15-21 Park Row, N. Y. C.

Barclay 0600

Visit Our Shops and Yards at 335 Doremus Ave., Newark, N. J.

Say you saw it in SOAP!

A low cost
DISINFECTANT
and coal tar dip

A pure undiluted creosote oil disinfectant free from mineral oil and other adulterants, for those who are limited in the price they can pay. Write us for a sample of Disinfectant No. 2.

For 33 years, Chemical Supply Co. has specialized in supplying the jobbing and wholesale trades only with standard sanitary products. Send for a copy of booklet, "Chemical Specialties," giving full details about our products and our service for the jobber.

A 100% active
LIQUID INSECTICIDE

Light lemon color, absolutely stainless, safe and non-explosive, and sure death to household insects. Ask us for a sample to test yourself.

CHEMICAL SUPPLY CO. 2450 Canal Road, Cleveland, Ohio
Established 1898



SUPER-SERVER
Soap Dispenser

Manufactured from a solid casting of chrome alloy—beautiful, chrome, satin finish.

Large filling opening—substantial plated cap.

Valve removable—for cleaning or repairing—replaceable for a few cents.

Send \$1.00 for sample—retails at \$2.00.

We manufacture tank equipment, and other types of dispensers—also a complete line of sanitary chemicals, brushes, mops, polishes, soaps and appliances—send for catalog.

PALMER PRODUCTS, INC.

Waukesha, Wis., U. S. A.

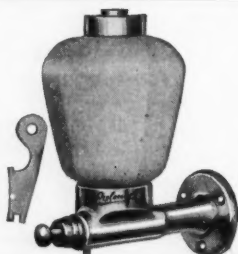
"Adjacent to Milwaukee"

The D-C
Dependable
Construction

The best inexpensive soap dispenser manufactured.

Fills without removing or inverting bowl, through large opening—closed with a substantial plated cap.

Round or decagon shaped bowls. Send 65c for sample.



The New Morrison when completed, will contain 3,400 rooms



TALLEST
Hotel
in the World
Forty-Six
Stories High

Chicago's
MORRISON
HOTEL

Corner Madison and Clark Sts.

Closest in the city to offices, theatres, stores and railroad stations

1,950 ROOMS NOW
500 BEING ADDED

—all outside, with bath, running ice water, telephone, bedhead lamp, radio set and Servidor.

RATES, \$2.50 UP

FLOOR WAX

LIQUID PASTE POWDER
UNDER YOUR OWN LABEL

We print the label

Send for Samples and Quotations

WINDSOR WAX COMPANY

50 Church Street

Cortlandt 7670

Factory: 611-617 Newark St., Hoboken, N. J.

New York, N. Y.

Say you saw it in SOAP!

two well-known soap plants desires to make new connection. Formulas, development new products, plant control, etc. Address Box 626, care *Soap*.

Sales Representative—Man with many years' experience in the sale of oils, fats, greases, both edible and inedible, desires new connection preferably with American producer or refiner. Address Box 584, care *Soap*.

Positions Open

Wanted—Salesman wanted by soap importer and jobber to cover Metropolitan territory among department, gift, etc. stores. State experience, etc. Box 618, care *Soap*.

Wanted—Salesmen for all territories to carry high class lithographed imported labels and box tops for the soap and perfume trade. Stock and private designs. Apply to Herman Schoett, A.G., Rheidt, Germany. Advise experience, references and full details with application.

Salesman—Wanted by a well-known manufacturer of specialty soap products to cover New York and Metropolitan area. Man must be experienced and know the jobbers and large consumers of potash soaps and other specialties. Write to Box 607, care *Soap*.

Sales Representative—Man wanted in Metropolitan New York area for a well known line of disinfectants, insecticides, and sanitary preparations. State experience, references, and acquaintances with trade. Address Box 605, care *Soap*.

Wanted—Soap Maker with thorough manufacturing experience in shampoo base, pastes, liquid shampoo, castile soap, etc. Excellent opportunity for good man. Please state in detail past connections and salary desired to start. Box 619, care *Soap*.

Representatives Wanted—A new corporation handling full line of chemicals, oils, dyestuffs, specialties, industrial paints, etc., wants capable representatives to sell on commission basis. Answer in detail. Box 608, care *Soap*.

For Sale

Completely equipped plant manufacturing disinfectants, liquid soap, insecticides, etc., perfect running condition, heart New York City, cheap rent. Box 620, care *Soap*.

Floor Brushes—Aggressive jobbers will be interested in our distinctive fast-selling line of floor brushes. Write—"Jones of Jonesville," Jonesville, Mich.

INVENTORY SALE

COMPLETE PLANT SOAP EQUIPMENT

SPECIALS

1—Proctor & Schwartz late model Soap Chip Dryer with 5 roll chilling unit, capacity 850 to 1,000 lbs. per hour.

1—Soap Chip Dryer, with Chilling Rolls, 1500 lbs. capacity.

Liquidation Complete Soap Plant. Equipment consists of Dryer, Various Tanks, Kettles, Crutchers, Frames, Slabber, Cutting Table, Automatic and Foot Presses, Wrapping Machines, Pumps, etc. Location Eastern Seaboard.

- 3—Dopp & Doll Vert., 1000 & 1500 lbs. Crutchers.
- 5—Foot Presses for Soaps & Deodorizing Blocks.
- 2—Jones & Ralston Automatic Presses.
- 8—Dopp Kettles, Open & Closed.
- 1—Ernest Scott Glycerine single effect Evaporator, complete with vacuum pumps.
- 8—Cast Iron, 12, 18, 24, 30 & 36 inches square, Shriver and Sperry Filter Presses.
- 50—600 & 1200 lbs. capacity Frames.
- 2—3 roll Huber & HA Stone Mills.
- 1—4 Roll Rutchman Stone Mill.
- 4—Nos. 1, 2, and 3 Meade Mills.
- 1—Powder Crusher.
- 2—6" Single and Twin Screw Plodders.
- 2—Broughton Mixers.
- 6—J. H. Day Sifters & Mixers, sizes O, A, B, C, D, E, & G, 50 to 2000 lbs. capacity.
- 4—Gas and Coal Boilers.
- 1—American Soap Wrapping Machine for 6, 8 and 10 oz. cakes, COMPLETE.
- 10—Duplex & Simplex Steam; Triplex and Rotary pulley driven Pumps.
- 2—Slabbers, 600 and 1200 lbs. Hand and Power Driven.
- 10—Rotary Soap Pumps—1 to 4 inch.

BLOWERS - EXHAUST FANS - ENGINES - STEEL AND WOOD TANKS - PUMPS - STORAGE TANKS - MOTORS - CONVEYORS - ELEVATORS - COPPER, ALUMINUM AND IRON KETTLES - ETC.

Send for Complete List!

We buy and sell from single items to complete plants

STEIN-BRILL CORP.

25 Church Street

PHONE

New York City

WRITE!

Phones—Barclay 4850-1-2

Say you saw it in SOAP!

SHAMPOOS

Cake

Powder

Paste

Liquid

Furnished in any form in bulk or packaged. Made to meet your requirements. Over 55 years' experience at your service.

GEO. A. SCHMIDT CO.

Manufacturers of **SOAPS** of Every Description

236-238 West North Avenue.
Chicago.

A 35 Year Old Insecticide Line with Money-Back GUARANTEE

For 35 years, Edgar A. Murray Insecticides have met the needs of the janitor supply trade satisfactorily. Those who sell them have found them absolutely reliable and uniform in quality at all times.

So sure are we that you, too, will be pleased with them that we offer them to you with an iron-clad money-back guarantee—"No Riddance, No Pay."

If you are not handling a line of guaranteed insecticides, get the Edgar A. Murray proposition. Mail the coupon TODAY for complete information, prices and discounts.

EDGAR A. MURRAY CO.

2729 Guoin Street

Detroit, Mich.

A Complete Line of Six Guaranteed Insecticides

Fly, Ant, Rat,
Bug, Mosquito,
Moth

ROACH DOOM

MAIL THIS COUPON TODAY

EDGAR A. MURRAY CO.

2729 Guoin Street, Detroit, Mich.

Gentlemen:—Please send us further information regarding your insecticide line, prices, discounts, etc.

FIRM NAME

ADDRESS

CITY STATE



RATIN

*a profitable
side line!*

You are always looking for ways to increase your profits. Why not act as RATIN representative in your locality? This proved rat and mice exterminator may be handled along with your regular line of sanitary products at a nice profit.

May we submit complete details?

The Ratin Laboratory, Inc.

116 Broad Street, New York City

"FILMASEAL"

Trade Mark Reg.

Patents Pending

**Airtight . . .
Leakproof . . .
Tamperproof.**

A transparent film sealed
to top of container

Plus our continuous
thread screw cap

Film must be removed
to reach contents

Used with standard
C. T. bottles and jars

Automatic application . . .
no decrease in output

Adapted to large scale
production

One of our films will
serve your purpose



FERDINAND GUTMANN & CO.

Bush Terminal No. 19 • Brooklyn, N. Y.

SANISEAL METAL MILK CAPS . . . DISTILLED WATER CAPS
CROWN CORKS
CONTINUOUS THREAD CAPS . . . SPECIAL PURPOSE CAPS

Closure Specialists Since 1890

Say you saw it in SOAP!

Capryl Alcohol (Sec. Octyl Alcohol) available in quantity. The product is now available at prices which make its use as a constituent of soaps, sprays, perfumes, disinfectants, etc. of great interest. Samples, particulars and prices on request. Box 622, care *Soap*.

Soap Formulas—I am offering the formulas of the late J. A. Kyle, who for over 35 years was connected with some of the largest manufacturers of soaps, etc., in this country. Personal services will be given if required. Address W. E. Wilkinson, 174 Vreeland Ave., Rutherford, N. J., or western agents, Acme Oil Corp., 4650 Iowa St., Chicago, Ill.

Miscellaneous

Associate Wanted—Owner of established and profitable soap business which has expanded materially of late is desirous of meeting individual with established sales connections in and about New York to take over the sales end of business. This is an active manufacturing company which has outgrown its present selling methods. Some capital investment may be required. Experience in the field is essential. Address full particulars in confidence to Box 610, care *Soap*.

Wanted—24", 30", and 36" plate and frame open delivery filter presses. Must be complete and in

good condition. Reply promptly to Box 625, care *Soap*.

Succeed with your own products. Make them yourself. Formulas, processes, trade-secrets. Expert analytical service. Catalog free. H. Thaxly Co., Washington, D. C.

Machinery installed and personal instruction given for all soap products. Efficient and economic methods taught. Formulas for new products and old ones improved. Address Expert, Box 598, care *Soap*.

Wanted—Going insecticide business manufacturing liquid sprays. Give details and other information in letter to Box No. 624, care *Soap*.

Representative—Man wanted to cover two territories for old established and well-known manufacturer of disinfectants, insecticides, and sanitary specialties to large consumers and the jobbing trade in (1) Buffalo and Western New York and adjacent territory, (2) Southern Ohio and Western Pennsylvania. We are particularly interested in getting in touch with established sales organizations in these territories who do not handle a competing line. Address Box 611, care *Soap*.

DISINFECTANTS *and* INSECTICIDES

FOR THE TRADE

57 Names were added last month to our mailing list for our technical sales letters. Send us your name.

SPECIAL THIS MONTH: Ask for sample of our LIQUID SCRUB SOAP and specimen label.

CHEMICAL COMPOUNDING CORP.

262 Huron St.

Greenpoint 9-5585

Brooklyn, N. Y.

**bulk
soft
soap**

For the trade

**Liquid Soap Base
Auto Soap
Oil Soap**

Shampoo Base, etc.

**Liquid Soap
Pine Oil Soap
S. P. Green Soap**

Harley soft soaps are made right and are priced right. Send us your next inquiry for any of the above and a sample and quotation on your requirements will prove this statement.

HARLEY SOAP CO.

2852 E. PACIFIC ST.
PHILADELPHIA

Say you saw it in *SOAP*!

Where to buy

RAW MATERIALS AND EQUIPMENT

for the Manufacture of Soaps and Sanitary Products.

NOTE: This is a classified list of the companies which advertise regularly in *Soap*. It will aid you in locating advertisements of raw materials, bulk and private brand products, equipment, etc., in which you are particularly interested. Refer to the Index to Advertisements, on the following pages, for page numbers. "Say you saw it in SOAP."

ADHESIVES

Grasselli Chemical Co.
Mechling Bros. Chemical Co.
National Adhesives Corp.
Philadelphia Quartz Co.
Standard Silicate Co.

ALKALIES

Diamond Alkali Co.
Dow Chemical Co.
Hooker Electrochemical Co.
Niagara Alkali Co.
Solvay Sales Corp.
Stauffer Chemical Co.
Warner Chemical Co.
Welch, Holme & Clark Co.
Isaac Winkler & Bro. Co.

AROMATIC CHEMICALS

Antoine Chiris Co.
Dodge & Olcott Co.
Dow Chemical Co.
P. R. Dreyer, Inc.
Felton Chemical Co.
Benj. French, Inc.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
Merck & Co.
Monsanto Chemical Works
Newport Chemical Works
Polaks Frutal Works
Schering Corp.
George Silver Import Co.
Solvay Sales Corp.
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.
Vanillin-Fabrik
Albert Verley, Inc.

BAGS

Bemis Bros. Bag Co.

BULK AND PRIVATE BRAND PRODUCTS

Alpine Chemical Co.
Baird & McGuire, Inc.
Brooks Oil Co.
Chemical Compounding Corp.
Chemical Supply Co.
Clifton Chemical Co.
Davies-Young Soap Co.
Eagle Soap Corp.
Harley Soap Co.
Koppers Products Co.
Kranich Soap Co.
Edgar A. Murray Co.
Palmer Co.
John Powell & Co.
Ratin Laboratory
Geo. A. Schmidt & Co.
Stevens Soap Corp.
Tar Products Corp.
U. S. Sanitary Specialties Corp.
White Tar Co.
Windsor Wax Co.
Allen B. Wrisley Co.

CANS

Continental Can Co.
Metal Package Corp.
William Vogel & Bro.

CHEMICALS

American Cyanamid Co.
Diamond Alkali Co.
Dow Chemical Co.
Grasselli Chemical Co.
Hooker Electrochemical Co.
Mechling Bros. Chemical Co.
Merck & Co.
Monsanto Chemical Works
Newport Chemical Works
Niagara Alkali Co.
Parsons & Petit
Philadelphia Quartz Co.
Solvay Sales Corp.
Standard Silicate Co.
Stauffer Chemical Co.
Victor Chemical Works
Warner Chemical Co.
Welch, Holme & Clark Co.
Isaac Winkler & Bro. Co.

COAL TAR RAW MATERIALS

(Cresylic Acid, Tar Acid Oil, etc.)

American Cyanamid Co.
Baird & McGuire, Inc.
Barrett Co.
Dominion Tar & Chem. Co.
Koppers Products Co.
Monsanto Chemical Works
Tar Products Corp.
White Tar Co.

COLLAPSIBLE TUBES

Sun Tube Corp.

DEODORIZING BLOCK HOLDERS

Eagle Soap Corp.
Palmer Co.
U. S. Sanitary Specialties Corp.
William Vogel & Bro.

ESSENTIAL OILS

Antoine Chiris Co.
Dodge & Olcott Co.
P. R. Dreyer, Inc.
Fritzsche Brothers, Inc.
Parsons & Petit
Polaks Frutal Works
George Silver Import Co.
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.
Albert Verley, Inc.
Paolo Vilardi

Continued on Page 130

Consulting Chemists and Engineers

Specializing in Soaps, Disinfectants, Insecticides, Polishes, Etc.

FOSTER D. SNELL, A. M. Ph. D.

130 CLINTON ST., BROOKLYN, N. Y.

Consulting Chemist

RESEARCH
ANALYSIS

CONSULTATION
OPERATION

SOAP, POLISH AND SPECIALTIES

Samuel P. Sadtler & Son, Inc.

Consulting Chemists and Analysts

210 S. 13th St.

Philadelphia

Specializing in

OILS-SOAPS-POLISHES-ETC.

Analyses - Practical Formula Development

INSECTICIDES
DISINFECTANTS
RELATED PRODUCTS

Labels

ADVERTISING
FORMULAE
PROCESS

L. N. MARKWOOD

Formerly with U. S. Dept. of Agriculture

Chemical Consultant

1001 15th St., Washington, D. C.

Charles H. LaWall

Jos. W. E. Harrison

LaWall & Harrison

Chemists

Analytical—Consulting—Research

Phenol Coefficients

636 Race St.

Philadelphia

BUREAU OF CHEMISTRY

of the

New York Produce Exchange

H. P. TREVITHICK, Chief Chemist

Soaps, Vegetable Oils, Glycerine, Shellac

Rooms F-12-16

2 Broadway

Produce Exchange Bldg.

New York, N. Y.

Member Association of Cons. Chemists and Chemical Engineers

ALAN PORTER LEE

Engineer

SOAPMAKERS' PROCESSES
OIL EXTRACTION—REFINING
VACUUM BLEACHING—HYDROGENATION
FATTY ACID AND GLYCERINE TECHNIC
Design, Construction, Operation
Reports, Appraisals

136 Liberty St., New York, U. S. A.

Illinois Chemical Laboratories, Inc. Chicago, Illinois

One of the oldest and most completely equipped laboratories in the middle west, maintaining special departments for Soap, Oils, Metals, Finishing materials, Cosmetics, Polishes and Cleaners, Insecticides and Sanitary Specialties, Foods and Beverages.

1164 W. 22nd Street

Canal—7313-7314

CONSULTING CHEMISTS AND ENGINEERS

offering their services to manufacturers of soaps, disinfectants, household insecticides, polishes, cleansers, etc., should keep themselves before the entire industry regularly through the use of space in this department of SOAP.

Formulas
Manufacturing Processes
Analytical Service
Catalog on request

H. THAXLY CO. Washington, D. C.

SEIL, PUTT & RUSBY, INC.

16 East 34th Street, New York City

Specialists in the analysis of

Essential and Fatty Oils

Aromatic Chemicals

Pyrethrum Sprays and Powder

TELEPHONE ASHLAND 4343

CONSULTING CHEMISTS AND ENGINEERS

offering their services to manufacturers of soaps, disinfectants, household insecticides, polishes, cleansers, etc., should keep themselves before the entire industry regularly through the use of space in this department of SOAP.

Skinner & Sherman, Inc.

246 Stuart Street, Boston, Mass.

Bacteriologists and Chemists

Disinfectants tested for germicidal value of phenol coefficient by any of the recognized methods.

Research—Analyses—Tests

Say you saw it in SOAP!

RAW MATERIAL and EQUIPMENT GUIDE

(Continued from Page 128)

NOTE: This is a classified list of the companies which advertise regularly in *Soap*. It will aid you in locating advertisements of raw materials, bulk and private brand products, equipment, etc., in which you are particularly interested. Refer to the Index to Advertisements, on the following pages, for page numbers. "Say you saw it in *SOAP*."

MACHINERY

Alsop Engineering Co. (Liquid mixing, filling and storage)
Chemical Equipment Co. (Glycerine Evaporators)
Anthony J. Fries (Soap Dies)
Houchin-Aiken Co. (Soap Machinery)
Mixing Equipment Co. (Portable Mixers)
Proctor & Schwartz (Dryers)
Robinson, Butler, Hemmingway Co. (Hydrogenation Equipment)
C. G. Sargent's Sons Co. (Dryers)
Solutionizer Co. (Sudsing Equipment)
Sowers Mfg. Co. (Crutchers)
Stokes & Smith Co. (Packaging Machinery)
Wurster & Sanger, Inc. (Soap, Glycerine, Oil, Hydro plants)

MACHINERY, USED

Consolidated Products Co.
Newman Tallow & Soap Machinery Co.
Stein-Brill Co.

METAL CAPS

Anchor Cap & Closure Corp.
Ferdinand Gutman & Co.
Williams Sealing Corp.

OILS AND FATS

Acme Oil Corp.
Brown-Edwards Co.
Davidson Commission Co.
Emery Industries, Inc.
Spencer Kellogg & Sons
Leghorn Trading Co.
Newman Tallow & Soap Machinery Co.
Parsons & Petit
Welch, Holme & Clark Co.

PARADICHLORBENZENE

Dow Chemical Co.
Hooker Electrochemical Co.
Monsanto Chemical Works
Niagara Alkali Co.
Solvay Sales Corp.

PERFUMING COMPOUNDS

Antoine Chiris Co.
Dodge & Olcott Co.
P. R. Dreyer, Inc.
Evergreen Chemical Co.
Felton Chemical Corp.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
Heine & Co.
E. M. Laning Co.
Polaks Frutal Works
George Silver Import Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.
Albert Verley, Inc.

PYRETHRUM PRODUCTS

(Insect Flowers, Powder and Pyr. Ext.)

Cino Chemical Co.
King & Howe, Inc.
McCormick & Co.
McLaughlin, Gormley, King Co.
John Powell & Co.

RAW MATERIALS, MISCELLANEOUS

Darco Sales Corp. (Decol. Carbons)
Franks Chem. Prods. Co. (Stearates)
General Naval Stores Co. (Pine Oil-Rosin)
Hercules Powder Co. (Pine Oil and Rosin)
Industrial Chemical Co. (Chalk)
Merck & Co. (Lanolin and Chlorophyll)
National Adhesives Corp. (Adhesives)
Rohm & Haas Co. (Insecticide Base)
Pylam Products Co. (Lathering Agent)

SOAP COLORS

Fezandie & Sperrle
Pylam Products Co.

SOAP DISPENSERS

Bobrick Mfg. Co.
Clifton Chemical Co.
Huntington Laboratories
Palmer Co.
U. S. Sanitary Specialties Co.

SODIUM SILICATE

Grasselli Chemical Co.
Mechling Bros. Chemical Co.
Philadelphia Quartz Co.
Standard Silicate Co.

SPRAYERS

American Can Co.
Breuer Electric Mfg Co.
Continental Can Co.
Dobbins Mfg. Co.
Hudson Mfg. Co.
Lowell Sprayer Co.
Potato Implement Co.
William Vogel & Bro.

STEEL CONTAINERS

Ohio Pail Co. (Pails)
Republic Steel Package Co.
John Trageser Steam Copper Works (Pails and Drums)
Wilson & Bennett Mfg. Co. (Pails and Drums)

TRI SODIUM PHOSPHATE

American Cyanamid Co.
Bowker Chemical Co.
Grasselli Chemical Co.
Victor Chemical Works
Warner Chemical Co.

a subscription
to **SOAP** . . .

*will keep you
posted*

on everything of interest to manufacturers of
soaps, disinfectants, polishes, insecticides and
related sanitary products.

*Special articles . . . news markets . . . patents
. . . trademarks . . . technical developments, etc.*

Annual Charge - \$3.00

Send Checks to

MacNAIR-DORLAND CO.

136 Liberty Street

New York

Say you saw it in SOAP!

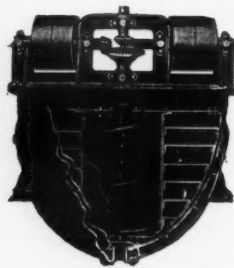
THOROUGH MIXING FOR HEAVY SOAPS

One reason why Dopp Seamless Kettles are preferred for sand or oil soaps, and other heavy soap specialties, is because they can be equipped with agitators giving actual and continuous scraping of the inner surface.

(Complete scraping is not possible in ordinary types of kettle construction where seams, joints, welds, rivets, staybolts, etc., are used.

Actual scraping helps to speed up heat transfer. It cuts down the time required per batch by preventing the formation of an insulating layer of material on the jacket surface. It also helps to prevent sticking and burning.

This is only one of the reasons why Dopp Mixers are preferred. Catalog 7-A gives others, and describes Dopp Mixers and Crutchers in detail, listing sizes and dimensions. Write for your copy.



Dopp Style "A-D" Mixer,
specially suited to heavy
soap specialties.

SOWERS MANUFACTURING CO.

MANUFACTURERS OF DOPP EQUIPMENT
FOR HEATING, COOLING AND MIXING

1296 Niagara St. Buffalo, N. Y.
New York Boston Toronto

Seamless DOPP Leakless

F. & S.

Quality Colors
for

TOILET SOAPS LIQUID SOAPS TOILET PREPARATIONS

Long experience enables us to produce colors for all types of soaps

If you have a shade you want matched send us a sample. We have complete facilities for matching.

Liquid soap colors a specialty—send for samples of F. & S. greens and ambers.

FEZANDIE & SPERRLE, Inc.

205 FULTON STREET
NEW YORK, N. Y.

Import—Manufacture—Export

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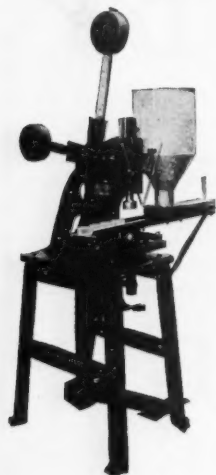
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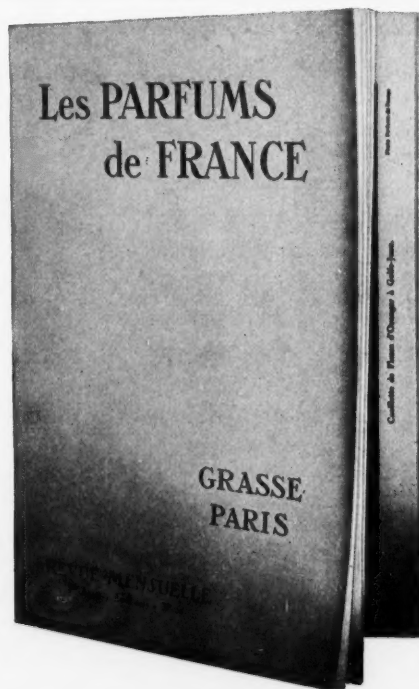
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M. P. 132.5-133° C.
Soluble in—

8 grs. per Kg. Alcohol
88 grs. per Kg. Diethyl Phthalate
160 grs. per Kg. Benzyl Benzoate

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